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CENTRAL STATISTICAL AGENCY**

**AGRICULTURAL SAMPLE SURVEY
2005 / 2006 (1998 E.C.)**

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REPORT ON

AREA AND PRODUCTION OF CROPS

(PRIVATE PEASANT HOLDINGS, MEHER SEASON)

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ABBREVIATIONS: CV – COEFFICIENT OF VARIATION

E.C. – ETHIOPIAN CALENDAR

S.N.N.P.R. – SOUTHERN NATIONS, NATIONALITIES AND PEOPLES' REGION

PART I

INTRODUCTION AND OBJECTIVES OF THE SURVEY

1.1. INTRODUCTION

The production and utilization of food crops is a necessity to humanity. Agriculture, as a primary activity directly connected to food availability, plays a crucial role in responding to this necessity. Agriculture is presumed to be the engine for economic development in developing countries and more oriented to rural development to ensure the wellbeing of the population. Consequently the efforts of government and non – government organizations have been poured on to it besides the farmers' to realize food security.

Adverse conditions emanating from natural disasters and man made problems such as the over exploitation of land generate shocks to agriculture that instigate crises related to food availability. These and other effects necessitate a priority in scrutinizing the performance of agriculture in order to combat food crises. Accurate and timely statistics are a requisite to check, appraise and gauge the agricultural situation. They are used to inform data users of the nature of agriculture and changes taking place in it and trigger policy intervention.

To this end, the Central Statistical Agency (CSA) has been furnishing statistical information on the country's agriculture since 1980/81. As part of this task the 2005/06 (1998 E.C) Agricultural Sample Survey was conducted to provide data on crop area and production of crops within the private peasant holdings for Meher Season of the cited year. The survey results are presented in this bulletin and other electronic media for data users.

The report comprises three parts. Part I contains the objectives of this annual survey. Part II deals with coverage of the survey, sample design, field organization and method of data collection and Part III includes the survey findings. Estimation procedures and formulation of estimates of totals, ratios and variance are presented in Appendix I. Estimates of the standard errors with the corresponding coefficients of

variations for area and production of crops are presented in Appendix II. The numbers of agricultural households covered, number of parcels and fields measured and number of crop-cuttings performed are presented in appendix III and the survey questionnaires in Appendix IV.

1.2. OBJECTIVES OF THE SURVEY

The general objective of CSA's Agricultural Sample Survey (AgSS) is to collect basic quantitative information on the country's agriculture that is essential for planning, policy formulation, monitoring and evaluation of mainly food security and other agricultural activities. The AgSS is composed of four components: Crop Production Forecast Survey, Meher Season Post Harvest Survey, Livestock Survey and Belg Season Survey.

The specific objectives of Meher Season Post Harvest Survey are to estimate the total cultivated area, production and yield of crops and provide estimates of land use area and quantity of agricultural inputs for Meher Season agriculture in companion reports published separately. All reports are based on the private peasant holdings in sedentary rural areas of the country, further subdivided by regions and zones.

PART II

SURVEY METHODOLOGY, DATA COLLECTION AND PROCESSING

2.1. SCOPE AND COVERAGE OF THE SURVEY

The range of data items that the 2005/06 (1998 E.C) Annual Agricultural Sample Survey (Meher Season) dealt with includes all cereals, pulses and oilseeds and the most commonly grown vegetables, root crops and permanent (perennial) crops. Holders growing at least one or more of these crops are enumerated and data on crop area and yield recorded, hence data on production of these crops acquired. This years Annual Agricultural Sample Survey (Meher season) covered the entire rural parts of the country except all zones of Gambella Region, and the non-sedentary population of three zones of Afar & six zones of Somali regions. Accordingly the survey took into account of all parts of Harari, Addis Ababa, Dire Dawa, and 58 additional Zones / Special weredas (that are treated as zones) of other regions.

To be covered by the survey, a total of 2,024 enumeration areas (EAs) and 250 resettlement localities were selected. However, due to various reasons that are beyond control, in 12 EAs and 1 resettlement locality the survey could not be successful and hence interrupted. Thus, all in all the survey succeeded to cover 2,012 EAs and 249 resettlement localities (99.43%) throughout the regions. The Annual Agricultural Sample survey (Meher season) was conducted on the basis of 30 agricultural households selected from each EA/resettlement locality. Regarding the ultimate sampling units, it was intended to cover a total of 68,220 agricultural households, however, 67,669 (99.12%) were actually covered by the survey.

2.2 SAMPLING FRAME

The list containing EAs of all regions and their respective agricultural households obtained from the 2001/02 Ethiopian Agricultural Sample Enumeration (EASE) was used as the sampling frame in order to select the primary sampling units (EAs). Consequently, all sample EAs were selected from this frame based on the design proposed for the survey. Resettlement localities, on the other hand, are sub-samples of

the list of all resettlements localities obtained from each region. The second stage sampling units, households, were selected from a fresh list of households that were prepared for each EA/ resettlement localities at the beginning of the survey.

2.3 SAMPLE DESIGN

In order to select the sample a stratified two-stage cluster sample design was implemented. Enumeration areas (EAs) /resettlement locality were taken to be the primary sampling units (PSUs) and the secondary sampling units (SSUs) were agricultural households.

In 2005/6, unlike the years before, in order to obtain a fairly representative number of extension program participant households the CSA categorized the listed agricultural households in each EAs/resettlement area into two strata, i.e. households that are and that are not participants of extension program. The stratification was done on the basis of the six major crops where by the extension program is mostly exercised in the country. The crops are maize, teff, wheat, barley, sorghum and finger millet.

The sample size for the 2005/06 agricultural sample survey was determined by taking into account of both the required level of precision for the most important estimates within each domain and the amount of resources allocated to the survey. In order to reduce non-sampling errors manageability of the survey in terms of quality and operational control was also in addition considered.

Except Harari, Addis Ababa and Dire Dawa, where each region as a whole was taken to be the domain of estimation; each zone of a region / special wereda was adopted as a stratum for which major findings of the survey are reported.

Moreover, values about the 2005/06 cultivated areas of crops and the expected amount of production for Gambella region is also provided. However, it is important to note that the values are not obtained from the survey but they are projections from the results of the 2003/04 annual Crop Production Forecast Sample Survey.

2.4 SELECTION SCHEME

Enumeration areas/resettlement localities from each stratum were selected systematically using probability proportional to size sampling technique; size being number of agricultural households. The sizes for EAs were obtained from the 1994 Population & Housing Census and adjusted for the sub-sampling effect. Sizes for resettlement localities on the other hand were obtained from the 2004 listings of resettlement localities. From the fresh list of households prepared at the beginning of the survey 30 agricultural households within each sample EA/resettlement locality were selected systematically. Twenty of the households were selected from non extension participant agricultural households while the rest 10 households were selected from extension participant agricultural households.

Estimation procedure of totals, ratios, sampling error and the measurement of precision of estimates (CV) are given in Appendix I and II, respectively. Distribution of sampling units (sampled and covered EAs and resettlement localities) by stratum is also presented in Appendix-III.

2.5. ORGANIZATION OF FIELD WORK

The conduct of a survey cannot be executed without the arrangement of fieldwork. In recognition of this, the organization of fieldwork has been entrusted to the Department of Field Operations that liaises between the Head Office and the 25 Branch Statistical Offices spread across the regions. All Branch Offices took part in the survey execution especially in recruiting the enumerators, organizing the 2nd stage training, assigning the field staff to their sites of enumeration, supervising the data collection and retrieving completed questionnaires and submitting them to the Head Office for data processing.

The Branch Offices were also responsible in administering the financial and logistic aspects of the survey within their areas of operation. A total of 2388 enumerators, 455 field supervisors, 25 coordinators and 50 statisticians were involved in the data collection where on the average one supervisor was assigned to five enumeration areas

for supervision of data collection. All the enumerators were supplied with the necessary survey equipment after the completion of the training to ensure the smooth operation of the survey. To facilitate the data collection activities, a total of 205 four-wheel drive vehicles were used.

2.6. TRAINING OF FIELD STAFF

The execution of a survey and quality of data acquired from the survey highly depend on the type of training given to the enumerators and supervisors and the consequent understanding of the tasks to be performed and the standard procedures to be followed by the enumerators and supervisors in the survey undertaking. The quality and completeness of data is ensured when the training meets its objective of producing responsible and fervent enumerators and supervisors.

In light of this point, the training was given to the field staff in two stages. The first stage training, which took place at the Head Quarters of CSA and lasted 10 days targeted staff from the Head Office, and senior field supervisors from Branch Statistical Offices. The staff that took part in the first stage training was then assigned to conduct similar training for the enumerators and other supervisors for fifteen days in all the twenty- five Branch Statistical Offices distributed across the country.

In the training the field staff was given detailed classroom instruction on how to collect data, method of area measurement, method of crop cutting, interviewing procedures, etc. The training also included field practice to reinforce the understanding of concepts, definitions and theories discussed in the classroom with regard to field measurement, crop cutting and interviewing methods.

2.7. METHOD OF DATA COLLECTION

The agricultural data for the year 2005/06(1998 E.C) was collected from sedentary rural peasant households by interviewing the selected agricultural holders and physically measuring their fields and performing crop cutting procedures to gather data on crop yields and other items of interest. The data obtained were recorded in various forms designed for this purpose. Instruments like measuring tape; compass,

kitchen balance, scientific calculators and others were used during data collection for a timely and smooth acquisition of accurate data.

The procedures for measuring area under crop and area of non - crop fields operated by the holders were performed for the 25 selected households from each sampled E.A. using measuring tapes and compasses. All fields under major temporary crops of each holder of the fifteen randomly selected households of the 25 sample households were classified by crop type and a crop field was randomly selected from each crop type for crop cutting to be performed. The crop cutting procedure consists of demarcation of a four meter by four meter plot randomly located in the selected field where the crop in the demarcated plot is to be harvested.

Following the enumerator's harvest of the crop demarcated and threshing, the crop is kept in bags with identification information (i.e. holder's number, parcel and field numbers). The crop stored in the bag is weighed immediately (green weight) after threshing and weighed again after two weeks of drying to simulate normal holder harvesting and drying practices. Both the green and dry weights are recorded on the respective forms.

2.8. DATA PROCESSING

a) Editing Coding and Verification

Statistical data editing plays an important role in ensuring the quality of the collected survey data. It minimizes the effects of errors introduced while collecting data in the field, hence the need for data editing, coding and verification. Although coding and editing are done by the enumerators and supervisors in the field, respectively, verification of this task is done at the Head Office. An editing, coding and verification instruction manual was prepared and reproduced for this purpose. Then 55 editors-coders and verifiers were trained for two days in editing, coding and verification using the aforementioned manual as a reference and teaching aid. The completed questionnaires were edited, coded and later verified on a 100 % basis before the questionnaires were passed over to the data entry unit. The editing, coding and verification exercise of all questionnaires took 25 days.

b) Data Entry, Cleaning and Tabulation

Before data entry, the Natural Resources and Agricultural Statistics Department prepared edit specification for the survey for use on personal computers for data consistency checking purposes. The data on the edited and coded questionnaires were then entered into personal computers. The data were then checked and cleaned using the edit specifications prepared earlier for this purpose. The data entry operation involved about 80 data encoders and it took 60 days to finish the job. Finally, summarization of the data was done on personal computers to produce statistical tables as per the tabulation plan.

2.9. CONCEPTS AND DEFINITIONS

Data items of agriculture have to be distinctly defined and identified, so that the information about the items becomes useful. The correct way of stating data items and related terms is a prerequisite for making standards and definitions for the collection and compilation of agricultural data. The purpose of using standard concepts and definitions is not only to provide quality data but also to ensure that the right items are enumerated and measured accurately to reflect the agricultural situation.

Standard concepts and definitions used in the survey help to maintain consistent enumeration and measurement of variables of interest. To achieve this, CSA communicates concepts and definitions to the field staff through training and instruction manuals. The concepts and definitions used in the survey included the following.

Enumeration Area (E.A): an enumeration area in the rural parts of the country is a locality that is, in most of the cases less than, and only in some cases equal to a farmers' association in geographical area and usually consists of 150-200 households.

Household: a household may be either:

a) a one person household, that is a person who makes provisions for his own living with out combining with any other person to form part of a multi- person household or

b) a multi-person household, that is, a group of two or more persons who live together and make common provisions for food and other essentials of living. The persons in the group may pool their incomes and have a common budget to a greater or lesser extent. They may be related or unrelated persons or a combination of both. These persons are taken as members of the household.

Agriculture: - The growing of crops and/or raising of animals for own consumption and /or sale.

Agricultural Household: - a household is considered an agricultural household when at least one member of the household is engaged in growing crops and/or raising livestock in private or in combination with others.

Holding: - a holding is all the land and /or livestock kept, which is used wholly or partly for agricultural production and is operated as one legal entity by one person alone, or with others with out regard to management, organization, size or location.

Holder: - a holder is a person who exercises management control over the operation of the agricultural holding and makes the major decision regarding the utilization of the available resources. He/she has primary technical and economic responsibility for the holding. He/she may operate the holding directly as an owner or a manager. Under conditions of traditional agricultural holding the holder may be regarded as the person, who with or with out the help of others, operates land and/or raises livestock in his/her own right, i.e. the person who decides on which, where, when, and how to grow crops or raise livestock or both and has the right to determine the utilization of the products.

Parcel: - a parcel of holding is any piece of land entirely surrounded by land and/or water and/or road and/or forest etc., which is not part of the holding. It may consist of one or more cadastral units, plots or fields adjacent to each other.

Field: - a field is defined as any plot of land which is a parcel or part of a parcel under the same or mixed crops or any other form of land use (private holding).

Crop: includes cereals, pulses, oilseeds, vegetables, root crops, fruits, coffee, Enset, Chat, hops, sugarcane, cotton, tobacco, etc produced for food, making drinks, stimulation and making fabrics or clothing.

Crop production: - the process of growing and harvesting of the above crops for own consumption and/or sale.

Temporary/Annual Crops: - Annual/temporary crops are crops, which are grown in less than a year's time, sometimes only a few months with an objective to sow or replant again for additional production following the current harvest. Continuously grown crops planted in rotation are also considered as temporary crops since each is harvested and destroyed by ploughing in preparation for each successive crop.

Permanent (Perennial) Crops: - Crops, which are grown and occupy land for a long period of time, not requiring replanting for several years after each harvest, are considered as permanent crops. All fruit trees (i.e. oranges, mandarin, bananas, etc) and trees for beverages (i.e. coffee, tea, hops (Gesho), etc) are considered permanent crops but meadows and pastures are excluded.

Meher (Main) Season Crop: - any temporary crop harvested between the months of Meskerm (September) and Yekatit (February) is considered as meher season crop.

Belg Season Crop: - any temporary crop harvested between the months of Megabit (March) and Nehase (August) is considered to be Belg Season Crop.

PART III

SUMMARY OF SURVEY RESULTS

3.1 AREA & PRODUCTION

By and large, agriculture in Ethiopia is subsistence. This is particularly true to the major food crops grown in the country and covered in the survey. The major food crops are produced in almost all regions of the country in spite of the variation in volume of production across the regions. The variation may be attributed to the extent of area devoted to each crop type, weather change and a shift in preference for the crops grown.

The food crops on which data is collected are the ones that are commonly grown by the majority of peasant holders. In the statistical tables these crops have been categorized into eight groups for simplicity of description and comparison purposes. The groups are cereals, pulses, oilseeds, vegetables, root crops, fruit crops, stimulant crops and sugar cane. Stimulant crops consist of Chat, coffee and hops.

3.1.1 Cereals: - these are the major food crops both in terms of the area they are planted to and volume of production obtained. They are produced in larger volume compared with other crops because they are the principal staple crops. Cereals are grown in all the regions with varying quantity as shown in the survey results. Data on the yields of six cereal crops (teff, barley, wheat, maize, sorghum and finger millet) with extension package have been collected to draw an analogy with similar crops that are without extension package. The data in Table 1 well underpin this finding of the survey.

Out of the total grain crop area, 79.46% (8.1million hectares) was under cereals. Teff, maize, sorghum and wheat took up 22.08% (2.2 million hectares), 15.00% (1.5 million hectares), 14.43% (nearly 1.5 million hectares) and 14.35% (nearly 1.5 million hectares) of the grain crop area, respectively. As to production, the tables paint similar

picture as that of the area. Cereals contributed 86.86% (more than 116.2 million quintals) of the grain production. Maize, wheat, Teff and sorghum made up 24.93% (33.4 million quintals), 16.58% (22.2million quintals), 16.26% (21.8 million quintals) and 16.24% (21.7 million quintals) of the grain production in the same order.

Note *The estimates for Gambela are that of the forecast for 2002/03 for the same region and agricultural survey has not been conducted in Gambela since then.*

Fig. 2 Area Under Crops, 2005/06 (1998 E.C)

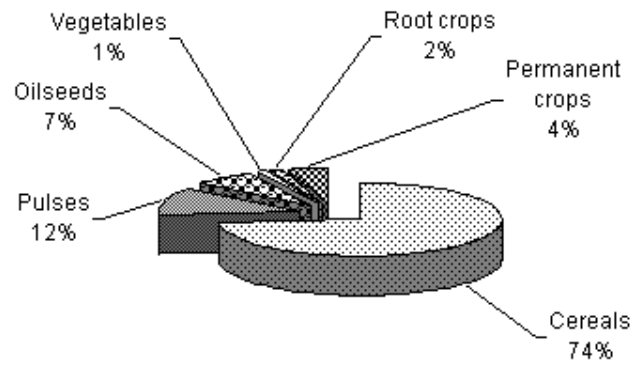
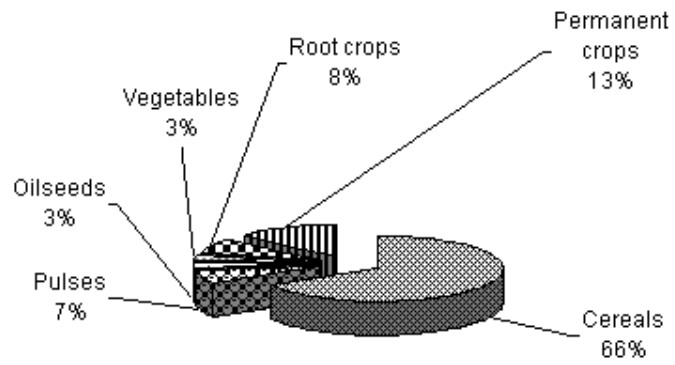


Fig. 3 Production of Crops, 2005/06 (1998 E.C)



3.1.2 Pulses: - The survey results show that the private peasant holders grow various crops for own consumption and/ or economic benefits. Pulses are also among the various crops produced in all the regions of the country after cereals. Pulses are grown in different volumes across the country as indicated in Table 1.

Pulses grown in 2005 / 06 (1998 E.C) covered 12.70% (nearly 1.3 million hectares) of the grain crop area and 9.50% (more than 12.7 million quintals) of the grain production was drawn from the same crops. Faba beans, field peas and chick-peas were planted to 4.49% (nearly 457 thousand hectares), 2.29% (233 thousand hectares) and 1.98% (201 thousand hectares) of the grain crop area. The production obtained from the same crops was 3.83% (5.1 million quintals), 1.36% (1.8 million) and 1.57% (2.1 million) of the grain production, in that order.

3.1.3 Oilseeds: - these are crops grown to flavour the food consumed at home and earn some cash for peasant holders in the country. Various oil crops are produced in all the regions with differing quantity as illustrated in the survey results. Table 1 underscores this point in detail.

Oilseeds added 7.84% (more than 797 thousand hectares) of the grain crop area and 3.64% (4.9 million quintals) of the production to the national grain total. Neug, linseed and sesame covered 3.02% (about 307 thousand hectares), 2.11% (more than 215 thousand hectares) and 2.02% (more than 205 thousand hectares) of the grain crop area and 1.10% (1.5 million quintals), 0.94% (1.3 million quintals) and 1.11% (1.5 million quintals) of the grain production.

3.1.4 Vegetables- holders living near to urban centres largely practice vegetable farming. Most vegetables are not commonly practiced by the rural private peasant holders, hence the small volume of production recorded as well evidenced by the survey results. Statistical Table 1 underlines this more in the report.

Vegetables took up 1.08% of the area under all crops at national level. Of all the area under vegetables 69.31% and 19.57% was under red peppers and Ethiopian Cabbage, respectively. As to production of vegetables, 39.77% and 40.17% was that of the same crops, in that order.

3.1.5 Root Crops - Some root crops like onion and garlic are indispensable to improve the taste and scent of the food we eat. Others like potatoes, sweet potatoes and taro/ Godere are among the list of major food crops that are consumed across the country. These and other economic importances prompt the peasant holders to grow many of the root crops as shown in the survey results. Table 1 substantiates this point in more details.

Root crops covered more than 1.55% of the area under all crops in the country. Potatoes, sweet potatoes and taro ('Godere') added 36.50%, 29.71% and 15.09% of the area to the root crop total. The same crops and onion contributed 33.65%, 30.56%, 12.89% and 13.15% to the root crop production total in the same order.

3.1.6 Fruit Crops – The survey results show that fruit crops grown by the private peasant holders cover only a small token area and production in the country. The number of holders practicing fruit farming is much less than that of grains or cereals as indicated in the tables.

More than 45 thousand hectares of land is under fruit crops in Ethiopia. Bananas contributed about 62.39% of the fruit crop area followed by mangoes that contributed 11.99% of the area. Nearly 4.3 million quintals of fruits was produced in the country. Bananas, Papayas, mangoes and oranges took up 49.37%, 16.60%, 12.78% and 11.83% of the fruit production, respectively, as shown in Table 1.

3.1.7 Stimulant crops – Farmers engaged in growing and producing stimulant crops such as coffee and Chat are greater in number than those growing fruits. The area and production of these crops are also larger than that of fruits since they earn a considerable amount of cash for the holders. Table 1 shows Chat and coffee shared 1.24% and 2.39% of the area under all crops in the country and 1.2 and 1.7 million quintals of produce was obtained from these crops in the same agricultural year respectively.

3.1.8 Sugar Cane- is grown in small areas in some parts of the country within the private peasant holdings. Its volume of production is also small. The survey data substantiates these points as shown in Table 1. About 19 thousand hectares of land was under sugar cane in the country, yielding 16.1 million quintals of produce by the peasant holders.

Table 2 - Estimate of Area and Production of Grain Crops for 2004/2005 (1997 E.C) and 2005/2006 (1998 E.C), Meher Season

Region	Area in hectare			Production in quintal		
	2004 / 05 (1997 E.C)	2005 / 06 (1998 E.C)	% Change	2004 / 05 (1997 E.C)	2005 / 06 (1998 E.C)	% Change
TIGRAY	674,551	708,350	5.01	6,316,303	8,587,980	35.97
AFAR	12,311	19,088	55.05	167,503	376,330	124.67
AMHARA	3,374,253	3,570,812	5.83	37,623,470	43,854,714	16.56
OROMIA	4,574,889	4,720,123	3.17	62,321,656	67,727,141	8.67
SOMALI	72,130	67,290	-6.71	446,486	378,094	-15.32
BENISHANGUL-GUMUZ	166,285	171,876	3.36	1,698,970	2,085,802	22.77
S.N.N.P.R.	913,209	876,693	-4.00	10,271,639	10,359,040	0.85
GAMBELA	-	9,890	-	-	171,067	-
HARARI	7,594	8,807	15.98	45,689	78,154	71.06
ADDIS ABABA	8,211	10,094	22.93	126,179	124,037	-1.70
DIRE DAWA	7,638	7,888	3.28	50,206	78,917	57.19
ALL	9,838,763	10,170,911	3.38	119,343,715	133,821,275	12.13

Fig.1 - Area and Production of Grain Crops by Region, 2005/06 (1998 E.C)

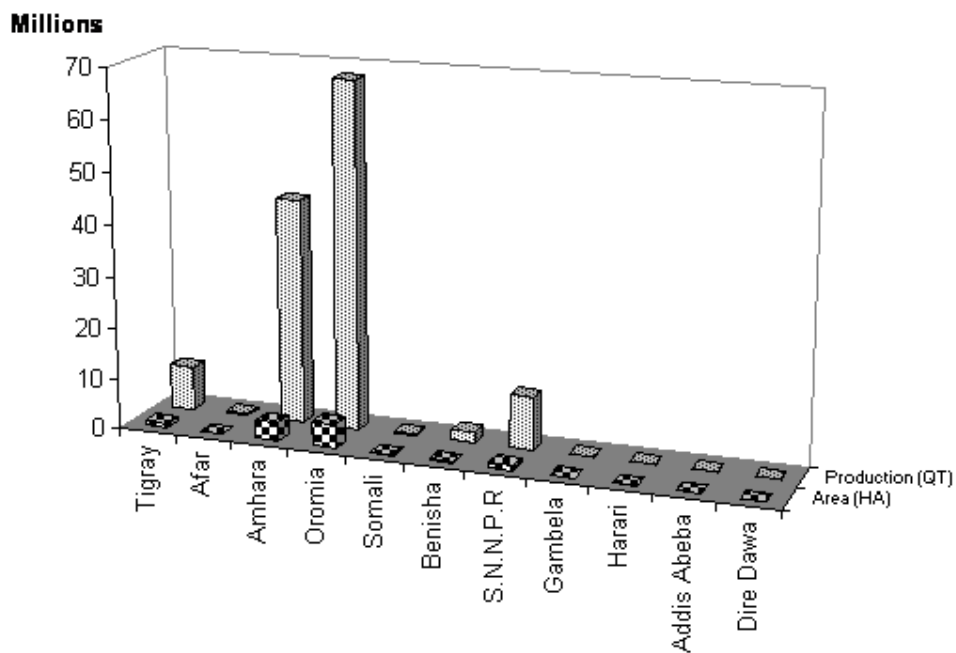


Table 4 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Tigray						
Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	719,770	708,350.16	8,587,979.61			
<u>Cereals</u>	713,853	585,847.06	7,568,135.30			
Teff	430,239	138,346.23	1,244,212.56	8.99	7.92	11.76
Barley	353,478	79,107.68	877,473.33	11.09	10.53	15.01
Wheat	295,435	76,775.57	1,006,984.81	13.12	11.81	15.83
Maize	428,015	46,192.02	803,328.81	17.39	17.15	23.38
Sorghum	392,418	184,010.83	2,934,832.63	15.95	15.69	17.36
Finger millet	254,189	60,736.95	695,630.27	11.45	10.80	12.88
Oats / 'Aja'	3,603	677.77	5,672.89	8.37		
Rice	*	*	*	*		
<u>Pulses</u>	300,035	46,337.50	434,530.97			
Faba beans	176,301	14,615.78	173,610.66	11.88		
Field peas	48,511	5,239.86	49,484.09	9.44		
Haricot beans	19,526	3,308.21	15,077.35	4.56		
Chick-peas	51,827	11,701.51	96,647.68	8.26		
Lentils	35,385	4,060.29	29,290.84	7.21		
Grass peas	35,594	6,974.79	68,497.02	9.82		
Soya beans	907	21.36	200.76	9.40		
Fenugreek	15,783	415.69	1,722.57	4.14		
Gibto	*	*	*	*		
<u>Oilseeds</u>	205,735	76,165.60	585,313.34			
Neug	44,128	6,490.83	44,567.94	6.87		
Linseed	78,632	9,189.63	47,649.77	5.19		
Groundnuts	962	16.03	110.14	6.87		
Safflower	7,140	306.89	831.93	2.71		
Sesame	104,680	60,148.25	492,153.56	8.18		
Rape seed	2,465	13.98	*	*		
<u>Vegetables</u>	179,504	2,089.03	60,891.17			
Lettuce	4,243	34.11	849.93	24.92		
Head cabbage	6,115	30.40	920.24	30.27		
Ethiopian cabbage	1,159	11.85	48.77	4.12		
Tomatoes	23,316	430.68	23,471.24	54.50		
Green peppers	44,203	353.73	21,158.11	59.81		
Red peppers	119,700	1,205.38	14,442.89	11.98		
Swiss chard	8,070	22.87	*	*		
<u>Root crops</u>	95,959	1,647.91	184,747.65			
Beetroot	1,458	1.41	5.35	3.79		
Carrot	5,523	110.06	10,326.21	93.82		
Onion	40,255	590.01	59,493.96	100.84		
Potatoes	17,339	402.78	42,402.87	105.28		
Garlic	56,506	538.30	72,441.47	134.57		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	1,443	5.35	77.79	14.54		
<u>Fruit crops</u>	22,142	190.66	2,607.03			
Avocados	800	2.18	*	*		
Bananas	2,844	22.97	74.23	3.23		
Guavas	7,463	62.49	265.70	4.25		
Lemons	7,804	29.66	1,217.08	41.03		
Mangoes	802	4.35	*	*		
Oranges	5,683	24.04	376.91	15.68		
Papayas	8,485	44.97	673.11	14.97		
Pineapples	*	*	*	*		
Chat	3,432	296.71	*	*		
Coffee	4,676	29.31	*	*		
Hops	84,343	1,117.89	18,304.59	16.37		
Sugar cane	637	1.94	*	*		

Table 4.1. - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

North West Tigray

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	129,365	167,244.39	2,084,631.63			
<u>Cereals</u>	129,104	142,960.86	1,904,113.02			
Teff	83,326	31,962.65	294,254.54	9.21	7.49	11.87
Barley	9,806	587.58	5,000.41	8.51	6.27	12.50
Wheat	588	14.45	156.87	10.86	10.83	-
Maize	109,493	17,063.93	320,066.85	18.76	18.96	23.61
Sorghum	100,309	58,735.34	895,585.42	15.25	14.90	16.49
Finger millet	99,218	34,578.52	389,048.93	11.25	10.09	12.57
Oats / 'Aja'	134	18.39	*	*		
Rice	*	*	*	*		
<u>Pulses</u>	43,640	6,423.95	55,020.63			
Faba beans	18,934	1,372.67	14,435.60	10.52		
Field peas	4,544	629.80	5,074.84	8.06		
Haricot beans	5,272	561.82	2,896.11	5.15		
Chick-peas	19,868	3,730.46	32,017.57	8.58		
Lentils	776	22.65	58.69	2.59		
Grass peas	618	28.09	337.06	12.00		
Soya beans	636	21.36	200.76	9.40		
Fenugreek	863	57.11	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	64,838	17,859.58	125,497.98			
Neug	22,039	3,002.22	20,844.36	6.94		
Linseed	13,537	1,052.99	5,136.55	4.88		
Groundnuts	715	8.25	57.73	7.00		
Safflower	*	*	*	*		
Sesame	39,618	13,787.28	99,459.35	7.21		
Rape seed	424	8.83	*	*		
<u>Vegetables</u>	86,237	788.66	8,382.21			
Lettuce	497	1.46	*	*		
Head cabbage	268	0.59	*	*		
Ethiopian cabbage	*	*	*	*		
Tomatoes	2,485	34.57	518.53	15.00		
Green peppers	7,086	36.35	*	*		
Red peppers	78,956	714.87	7,863.68	11.00		
Swiss chard	228	0.81	*	*		
<u>Root crops</u>	7,494	168.38	8,071.89			
Beetroot	268	0.18	5.35	29.72		
Carrot	480	4.24	*	*		
Onion	5,413	130.04	5,695.81	43.80		
Potatoes	191	7.50	*	*		
Garlic	1,793	25.27	2,370.74	93.82		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	221	1.15	*	*		
<u>Fruit crops</u>	4,623	48.97	1,380.50			
Avocados	*	*	*	*		
Bananas	1,130	4.47	74.23	16.61		
Guavas	873	6.04	*	*		
Lemons	2,751	19.51	1,059.55	54.31		
Mangoes	*	*	*	*		
Oranges	825	1.81	*	*		
Papayas	2,117	17.13	246.72	14.40		
Pineapples	*	*	*	*		
Chat	*	*	*	*		
Coffee	418	9.19	*	*		
Hops	10,569	133.36	2,507.13	18.80		
Sugar cane	*	*	*	*		

Table 4.2 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Central Tigray

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	211,384	154,123.97	1,794,755.28			
<u>Cereals</u>	211,384	141,193.46	1,678,349.05			
Teff	169,093	47,224.71	410,927.99	8.70	7.38	11.20
Barley	107,185	12,527.34	127,043.31	10.14	9.35	13.49
Wheat	71,720	10,967.72	131,733.04	12.01	11.64	12.63
Maize	149,651	14,939.73	252,288.45	16.89	16.33	21.53
Sorghum	124,223	43,061.79	641,578.76	14.90	14.24	19.30
Finger millet	90,043	12,472.16	114,777.50	9.20	8.63	12.95
Oats / 'Aja'	*	*	*	*		
Rice	*	*	*	*		
<u>Pulses</u>	91,210	10,000.36	97,899.82			
Faba beans	73,260	5,138.29	58,436.39	11.37		
Field peas	8,742	556.15	5,229.61	9.40		
Haricot beans	7,187	810.07	2,847.79	3.52		
Chick-peas	5,431	808.06	7,627.49	9.44		
Lentils	11,429	896.27	8,298.03	9.26		
Grass peas	9,038	1,591.67	14,220.59	8.93		
Soya beans	271	*	*	*		
Fenugreek	6,056	199.86	1,239.93	6.20		
Gibto	*	*	*	*		
<u>Oilseeds</u>	30,013	2,930.15	18,506.41			
Neug	4,880	375.17	1,920.25	5.12		
Linseed	18,322	1,537.09	8,223.26	5.35		
Groundnuts	192	4.08	30.17	7.39		
Safflower	663	1.65	*	*		
Sesame	7,802	1,008.75	8,332.73	8.26		
Rape seed	1,282	3.40	*	*		
<u>Vegetables</u>	30,748	247.97	12,726.24			
Lettuce	1,488	5.62	573.97	102.13		
Head cabbage	230	0.72	146.25	203.13		
Ethiopian cabbage	734	8.69	*	*		
Tomatoes	2,634	7.70	295.70	38.40		
Green peppers	14,969	111.43	10,418.92	93.50		
Red peppers	13,600	104.99	1,291.39	12.30		
Swiss chard	2,253	8.82	*	*		
<u>Root crops</u>	33,454	445.88	57,220.85			
Beetroot	666	0.64	*	*		
Carrot	1,750	10.30	1,059.95	102.91		
Onion	13,258	156.23	20,965.64	134.20		
Potatoes	3,867	21.99	2,841.13	129.20		
Garlic	25,977	254.29	32,320.06	127.10		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	774	2.43	34.07	14.02		
<u>Fruit crops</u>	6,248	45.85	*	*		
Avocados	582	1.79	*	*		
Bananas	1,271	11.41	*	*		
Guavas	1,229	4.70	*	*		
Lemons	1,804	2.02	*	*		
Mangoes	*	*	*	*		
Oranges	1,743	6.71	*	*		
Papayas	3,508	19.22	*	*		
Pineapples	*	*	*	*		
Chat	245	2.36	*	*		
Coffee	1,555	2.53	*	*		
Hops	23,761	545.58	8,020.03	14.70		
Sugar cane	291	1.40	*	*		

Table 4.3 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

East Tigray

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	113,169	68,357.31	779,931.37			
<u>Cereals</u>	112,577	59,264.14	707,199.48			
Teff	45,193	9,130.42	72,191.03	7.91	6.91	11.94
Barley	100,309	19,683.44	237,314.78	12.06	11.18	17.53
Wheat	84,244	16,855.09	202,347.88	12.01	10.48	16.44
Maize	53,941	5,524.27	89,033.16	16.12	15.00	27.70
Sorghum	28,467	4,627.13	68,128.05	14.72	14.44	21.75
Finger millet	24,637	3,155.90	36,075.86	11.43	11.27	14.40
Oats / 'Aja'	1,785	287.88	2,108.73	7.33		
Rice	*	*	*	*		
<u>Pulses</u>	57,529	7,200.21	64,350.50			
Faba beans	31,172	1,532.98	17,990.73	11.74		
Field peas	15,252	897.30	8,647.78	9.64		
Haricot beans	202	4.26	*	*		
Chick-peas	5,847	1,189.21	8,687.13	7.30		
Lentils	5,172	452.54	2,769.30	6.12		
Grass peas	15,259	3,099.57	26,182.16	8.45		
Soya beans	*	*	*	*		
Fenugreek	2,671	24.35	73.40	3.01		
Gibto	*	*	*	*		
<u>Oilseeds</u>	19,791	1,892.96	8,381.39			
Neug	825	26.51	43.36	1.64		
Linseed	18,026	1,845.19	8,305.38	4.50		
Groundnuts	*	*	*	*		
Safflower	1,032	19.52	32.65	1.67		
Sesame	*	*	*	*		
Rape seed	759	1.74	*	*		
<u>Vegetables</u>	21,839	293.37	9,272.92			
Lettuce	1,714	3.47	266.89	76.91		
Head cabbage	2,303	18.92	529.89	28.01		
Ethiopian cabbage	188	0.73	*	*		
Tomatoes	12,354	162.45	2,436.85	15.00		
Green peppers	13,915	76.33	3,236.29	42.40		
Red peppers	622	21.40	2,803.00	130.98		
Swiss chard	3,368	10.07	*	*		
<u>Root crops</u>	12,403	358.01	39,489.86			
Beetroot	413	0.30	*	*		
Carrot	192	0.09	8.62	95.78		
Onion	6,177	82.48	3,711.48	45.00		
Potatoes	6,247	264.48	34,171.39	129.20		
Garlic	2,392	10.66	1,598.37	149.94		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	*	*	*	*		
<u>Fruit crops</u>	3,099	56.32	428.12			
Avocados	218	0.39	*	*		
Bananas	*	*	*	*		
Guavas	2,156	45.03	265.70	5.90		
Lemons	*	*	*	*		
Mangoes	415	3.08	*	*		
Oranges	1,890	7.52	162.41	21.60		
Papayas	218	0.30	*	*		
Pineapples	*	*	*	*		
Chat	703	4.23	*	*		
Coffee	703	3.40	*	*		
Hops	18,921	145.02	3,089.00	21.30		
Sugar cane	*	*	*	*		

Table 4.4 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

South Tigray

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	197,512	209,178.79	2,643,007.04			
<u>Cereals</u>	196,637	183,230.25	2,415,860.31			
Teff	105,879	40,211.47	363,349.19	9.04	8.71	11.80
Barley	130,758	45,199.89	494,197.52	10.93	10.57	15.70
Wheat	133,610	47,741.30	649,578.09	13.61	12.36	17.21
Maize	69,365	5,730.85	99,090.18	17.29	17.65	18.80
Sorghum	79,472	41,933.05	783,721.60	18.69	18.82	20.97
Finger millet	12,820	2,042.19	22,359.58	10.95	10.38	18.20
Oats / 'Aja'	1,685	371.50	3,564.16	9.59		
Rice	*	*	*	*		
<u>Pulses</u>	91,095	20,723.53	200,337.49			
Faba beans	40,734	5,699.70	71,830.05	12.60		
Field peas	17,551	2,987.52	29,015.18	9.71		
Haricot beans	6,119	1,889.85	8,822.01	4.67		
Chick-peas	16,682	5,082.99	44,443.28	8.74		
Lentils	17,572	2,673.64	18,060.52	6.76		
Grass peas	10,679	2,255.46	27,757.21	12.31		
Soya beans	*	*	*	*		
Fenugreek	6,192	134.37	409.24	3.05		
Gibto	*	*	*	*		
<u>Oilseeds</u>	31,074	5,225.01	26,809.24			
Neug	2,228	122.76	1,991.66	16.22		
Linseed	25,121	4,373.04	22,440.67	5.13		
Groundnuts	*	*	*	*		
Safflower	5,446	285.71	799.27	2.80		
Sesame	2,420	443.49	1,577.64	3.56		
Rape seed	*	*	*	*		
<u>Vegetables</u>	22,023	367.53	14,843.64			
Lettuce	233	0.90	*	*		
Head cabbage	3,315	10.17	244.10	24.00		
Ethiopian cabbage	205	1.88	*	*		
Tomatoes	5,344	106.53	6,700.51	62.90		
Green peppers	6,739	113.51	7,502.89	66.10		
Red peppers	9,280	132.04	396.13	3.00		
Swiss chard	1,908	2.51	*	*		
<u>Root crops</u>	36,729	644.30	76,340.68			
Beetroot	*	*	*	*		
Carrot	3,101	95.44	9,257.64	97.00		
Onion	14,868	219.40	28,961.43	132.00		
Potatoes	6,933	105.67	5,389.10	51.00		
Garlic	20,773	222.37	32,732.50	147.20		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	372	1.42	*	*		
<u>Fruit crops</u>	3,793	13.48	*	*		
Avocados	*	*	*	*		
Bananas	*	*	*	*		
Guavas	2,760	5.91	*	*		
Lemons	226	0.37	*	*		
Mangoes	372	0.28	*	*		
Oranges	545	3.64	*	*		
Papayas	714	3.29	*	*		
Pineapples	*	*	*	*		
Chat	2,484	290.12	*	*		
Coffee	951	1.98	*	*		
Hops	17,703	105.84	719.71	6.80		
Sugar cane	244	0.02	*	*		

Table 4.5 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Western Tigray

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	68,339	109,445.70	1,285,654.30			
<u>Cereals</u>	64,150	59,198.35	862,613.44			
Teff	26,747	9,816.98	103,489.81	10.54	7.73	12.55
Barley	5,419	1,109.42	13,917.31	12.54	11.57	14.26
Wheat	5,273	1,197.02	23,168.94	19.36	11.01	21.94
Maize	45,565	2,933.24	42,850.18	14.61	14.72	15.35
Sorghum	59,947	35,653.52	545,818.81	15.31	14.75	15.51
Finger millet	27,472	8,488.18	133,368.40	15.71	15.69	17.98
Oats / 'Aja'	*	*	*	*		
Rice	*	*	*	*		
<u>Pulses</u>	16,561	1,989.44	16,922.54			
Faba beans	12,201	872.14	10,917.90	12.52		
Field peas	2,422	169.09	1,516.68	8.97		
Haricot beans	746	42.21	511.44	12.12		
Chick-peas	3,999	890.80	3,872.20	4.35		
Lentils	438	15.20	104.31	6.86		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	*	*	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	60,019	48,257.91	406,118.32			
Neug	14,156	2,964.16	19,768.31	6.67		
Linseed	3,627	381.32	3,543.93	9.29		
Groundnuts	54	3.71	22.25	6.00		
Safflower	*	*	*	*		
Sesame	54,841	44,908.73	382,783.84	8.52		
Rape seed	*	*	*	*		
<u>Vegetables</u>	18,657	391.50	15,666.16			
Lettuce	312	22.66	9.07	0.40		
Head cabbage	*	*	*	*		
Ethiopian cabbage	32	0.55	48.77	88.67		
Tomatoes	500	119.43	13,519.64	113.20		
Green peppers	1,494	16.11	*	*		
Red peppers	17,242	232.08	2,088.69	9.00		
Swiss chard	314	0.67	*	*		
<u>Root crops</u>	5,879	31.35	3,624.37			
Beetroot	110	0.29	*	*		
Carrot	*	*	*	*		
Onion	539	1.86	159.60	85.81		
Potatoes	102	3.14	1.25	0.40		
Garlic	5,570	25.71	3,419.80	133.01		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	76	0.35	43.72	124.91		
<u>Fruit crops</u>	4,379	26.04	798.42			
Avocados	*	*	*	*		
Bananas	443	7.08	*	*		
Guavas	445	0.81	*	*		
Lemons	3,022	7.76	157.53	20.30		
Mangoes	14	1.00	*	*		
Oranges	680	4.36	214.49	49.19		
Papayas	1,928	5.03	426.40	84.77		
Pineapples	*	*	*	*		
Chat	*	*	*	*		
Coffee	1,047	12.20	*	*		
Hops	13,389	188.09	3,968.72	21.10		
Sugar cane	103	0.52	*	*		

Table 5 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Afar Region

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt/ha)	Non - extension yield (qt/ha)	Extension yield (qt/ha)
Grain	16,901	19,088.15	376,329.99			
<u>Cereals</u>	15,840	17,357.52	370,345.66			
Teff	3,602	1,784.32	8,176.83	4.58	4.20	5.01
Barley	796	501.93	226.97	0.45	0.45	-
Wheat	367	29.62	145.34	4.91	4.91	-
Maize	14,157	12,776.38	347,277.56	27.18	27.18	-
Sorghum	3,997	2,265.28	14,518.98	6.41	6.39	7.51
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	*	*	*	*	*	-
Rice	*	*	*	*	*	-
<u>Pulses</u>	1,805	196.93	760.17			
Faba beans	*	*	*	*	*	-
Field peas	*	*	*	*	*	-
Haricot beans	1,444	110.51	472.72	4.28		
Chick-peas	548	83.51	287.45	3.44		
Lentils	37	2.82	*	*		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	37	0.08	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	4,293	1,533.70	5,224.16			
Neug	106	2.03	*	*		
Linseed	101	2.03	*	*		
Groundnuts	27	1.28	*	*		
Safflower	1,902	140.67	835.78	5.94		
Sesame	3,639	1,387.69	4,388.38	3.16		
Rape seed	*	*	*	*		
<u>Vegetables</u>	2,406	49.23	*			
Lettuce	*	*	*	*		
Head cabbage	37	0.01	*	*		
Ethiopian cabbage	70	0.07	*	*		
Tomatoes	147	19.50	*	*		
Green peppers	121	0.58	*	*		
Red peppers	2,139	29.07	*	*		
Swiss chard	*	*	*	*		
<u>Root crops</u>	1,222	261.59	15,222.57			
Beetroot	*	*	*	*		
Carrot	*	*	*	*		
Onion	1,103	260.21	15,222.57	58.50		
Potatoes	*	*	*	*		
Garlic	32	0.48	*	*		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	161	0.89	*	*		
<u>Fruit crops</u>	1,636	421.09	43,505.94			
Avocados	35	0.10	*	*		
Bananas	761	414.47	42,315.47	102.10		
Guavas	50	0.22	*	*		
Lemons	521	1.92	37.02	19.28		
Mangoes	85	1.11	*	*		
Oranges	148	0.71	*	*		
Papayas	856	2.56	1,153.46	450.57		
Pineapples	*	*	*	*		
Chat	74	0.06	*	*		
Coffee	407	2.41	*	*		
Hops	472	2.61	60.84	23.31		
Sugar cane	248	2.98	*	*		

Table 5.1 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Zone 1

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	10,821	13,486.53	340,270.86			
<u>Cereals</u>	9,798	12,530.91	337,885.01			
Teff	*	*	*	*	*	-
Barley	237	470.39	*	*	*	-
Wheat	*	*	*	*	*	-
Maize	9,539	11,985.14	336,347.44	28.06	28.07	-
Sorghum	90	75.37	1,537.58	20.40	20.40	-
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	*	*	*	*	*	-
Rice	*	*	*	*	*	-
<u>Pulses</u>	*	*	*	*	*	-
Faba beans	*	*	*	*	*	-
Field peas	*	*	*	*	*	-
Haricot beans	*	*	*	*	*	-
Chick-peas	*	*	*	*	*	-
Lentils	*	*	*	*	*	-
Grass peas	*	*	*	*	*	-
Soya beans	*	*	*	*	*	-
Fenugreek	*	*	*	*	*	-
Gibto	*	*	*	*	*	-
<u>Oilseeds</u>	1,051	955.62	2,385.85			
Neug	*	*	*	*	*	-
Linseed	*	*	*	*	*	-
Groundnuts	27	1.28	*	*	*	-
Safflower	*	*	*	*	*	-
Sesame	1,024	954.34	2,385.85	2.50		
Rape seed	*	*	*	*	*	-
<u>Vegetables</u>	61	8.88	*	*	*	-
Lettuce	*	*	*	*	*	-
Head cabbage	*	*	*	*	*	-
Ethiopian cabbage	*	*	*	*	*	-
Tomatoes	61	8.88	*	*	*	-
Green peppers	*	*	*	*	*	-
Red peppers	*	*	*	*	*	-
Swiss chard	*	*	*	*	*	-
<u>Root crops</u>	32	0.48	*	*	*	-
Beetroot	*	*	*	*	*	-
Carrot	*	*	*	*	*	-
Onion	*	*	*	*	*	-
Potatoes	*	*	*	*	*	-
Garlic	32	0.48	*	*	*	-
Taro / 'Godere'	*	*	*	*	*	-
Sweet potatoes	*	*	*	*	*	-
<u>Fruit crops</u>	35	0.33	*	*	*	-
Avocados	35	0.10	*	*	*	-
Bananas	35	0.02	*	*	*	-
Guavas	*	*	*	*	*	-
Lemons	*	*	*	*	*	-
Mangoes	35	0.22	*	*	*	-
Oranges	*	*	*	*	*	-
Papayas	*	*	*	*	*	-
Pineapples	*	*	*	*	*	-
Chat	*	*	*	*	*	-
Coffee	*	*	*	*	*	-
Hops	*	*	*	*	*	-
Sugar cane	*	*	*	*	*	-

Table 5.2 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Zone 3

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	6,079	5,601.62	36,059.13			
<u>Cereals</u>	6,042	4,826.61	32,460.65			
Teff	3,602	1,784.32	8,176.83	4.58	4.20	5.01
Barley	559	31.54	226.97	7.20	7.20	-
Wheat	367	29.62	145.34	4.91	4.91	-
Maize	4,618	791.23	10,930.12	13.81	13.81	-
Sorghum	3,907	2,189.90	12,981.40	5.93	5.90	7.51
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	*	*	*	*	*	-
Rice	*	*	*	*	*	-
<u>Pulses</u>	1,805	196.93	760.17			
Faba beans	*	*	*	*	*	-
Field peas	*	*	*	*	*	-
Haricot beans	1,444	110.51	472.72	4.28		
Chick-peas	548	83.51	287.45	3.44		
Lentils	37	2.82	*	*		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	37	0.08	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	3,242	578.08	2,838.31			
Neug	106	2.03	*	*		
Linseed	101	2.03	*	*		
Groundnuts	*	*	*	*		
Safflower	1,902	140.67	835.78	5.94		
Sesame	2,615	433.35	2,002.53	4.62		
Rape seed	*	*	*	*		
<u>Vegetables</u>	2,345	40.34	*			
Lettuce	*	*	*	*		
Head cabbage	37	0.01	*	*		
Ethiopian cabbage	70	0.07	*	*		
Tomatoes	86	10.62	*	*		
Green peppers	121	0.58	*	*		
Red peppers	2,139	29.07	*	*		
Swiss chard	*	*	*	*		
<u>Root crops</u>	1,190	261.11	15,222.57			
Beetroot	*	*	*	*		
Carrot	*	*	*	*		
Onion	1,103	260.21	15,222.57	58.50		
Potatoes	*	*	*	*		
Garlic	*	*	*	*		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	161	0.89	*	*		
<u>Fruit crops</u>	1,601	420.75	43,505.94			
Avocados	*	*	*	*		
Bananas	726	414.45	42,315.47	102.10		
Guavas	50	0.22	*	*		
Lemons	521	1.92	37.02	19.28		
Mangoes	50	0.89	*	*		
Oranges	148	0.71	*	*		
Papayas	856	2.56	1,153.46	450.57		
Pineapples	*	*	*	*		
Chat	74	0.06	*	*		
Coffee	407	2.41	*	*		
Hops	472	2.61	60.84	23.31		
Sugar cane	248	2.98	*	*		

Table 6.1 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

North Gondar

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	463,277	620,636.43	7,486,564.22			
<u>Cereals</u>	453,293	444,543.18	5,987,469.82			
Teff	244,295	125,348.00	1,074,415.83	8.57	7.70	10.14
Barley	149,183	43,281.75	542,574.00	12.54	12.56	15.60
Wheat	99,839	31,658.36	418,662.09	13.22	11.11	15.54
Maize	315,390	48,214.61	964,984.29	20.01	16.74	30.20
Sorghum	278,946	165,569.17	2,572,696.73	15.54	15.35	20.88
Finger millet	106,067	28,401.42	397,581.88	14.00	14.05	-
Oats / 'Aja'	15,737	1,979.17	15,378.75	7.77		
Rice	876	90.70	1,176.25	12.97		
<u>Pulses</u>	241,255	98,976.61	986,875.26			
Faba beans	152,594	29,967.42	338,116.66	11.28		
Field peas	69,797	11,443.83	78,037.25	6.82		
Haricot beans	23,983	2,769.29	10,293.58	3.72		
Chick-peas	111,014	42,950.23	473,919.30	11.03		
Lentils	24,184	2,895.59	19,350.92	6.68		
Grass peas	37,131	7,000.04	52,183.91	7.45		
Soya beans	447	101.05	131.13	1.30		
Fenugreek	24,000	1,849.17	14,842.51	8.03		
Gibto	*	*	*	*		
<u>Oilseeds</u>	253,470	77,116.64	512,219.14			
Neug	82,352	19,596.77	91,128.30	4.65		
Linseed	67,649	6,198.18	27,889.19	4.50		
Groundnuts	573	4.17	*	*		
Safflower	42,369	2,761.35	22,602.32	8.19		
Sesame	91,368	47,722.46	362,198.63	7.59		
Rape seed	31,062	833.70	8,400.70	10.08		
<u>Vegetables</u>	198,958	7,903.95	147,616.99			
Lettuce	1,686	5.14	*	*		
Head cabbage	4,616	32.55	130.21	4.00		
Ethiopian cabbage	27,329	152.53	7,702.67	50.50		
Tomatoes	5,094	46.37	157.67	3.40		
Green peppers	29,536	297.72	25,425.31	85.40		
Red peppers	141,151	7,367.81	114,201.13	15.50		
Swiss chard	1,032	1.82	*	*		
<u>Root crops</u>	152,324	4,606.11	387,314.90			
Beetroot	1,678	1.23	8.64	7.02		
Carrot	646	0.32	30.73	96.03		
Onion	9,425	136.63	18,445.22	135.00		
Potatoes	83,548	2,956.97	254,299.19	86.00		
Garlic	95,241	1,510.96	114,531.12	75.80		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	*	*	*	*		
<u>Fruit crops</u>	15,411	82.72	6,628.63			
Avocados	*	*	*	*		
Bananas	4,081	51.08	633.35	12.40		
Guavas	*	*	*	*		
Lemons	5,215	15.06	3,600.34	239.07		
Mangoes	573	0.17	*	*		
Oranges	*	*	*	*		
Papayas	7,439	16.40	2,394.94	146.03		
Pineapples	*	*	*	*		
Chat	573	6.45	*	*		
Coffee	28,224	618.42	3,710.50	6.00		
Hops	80,292	3,609.78	33,570.94	9.30		
Sugar cane	*	*	*	*		

Table 6.2 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

South Gondar

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	393,311	464,254.35	4,566,307.73			
<u>Cereals</u>	390,546	347,270.55	3,633,335.66			
Teff	284,563	123,555.29	1,087,161.05	8.80	8.11	9.84
Barley	193,606	47,535.97	466,820.53	9.82	9.71	13.85
Wheat	195,146	69,224.95	680,604.18	9.83	9.40	13.10
Maize	273,249	39,053.03	590,839.49	15.13	13.44	23.97
Sorghum	118,488	31,158.04	366,371.77	11.76	11.72	17.50
Finger millet	110,934	30,287.68	328,617.21	10.85	9.73	16.97
Oats / 'Aja'	6,852	678.28	6,272.66	9.25		
Rice	17,617	5,777.30	106,648.78	18.46		
<u>Pulses</u>	273,499	79,300.18	736,708.31			
Faba beans	157,900	22,952.37	267,320.39	11.65		
Field peas	52,799	8,895.55	62,734.31	7.05		
Haricot beans	28,140	7,449.66	34,006.35	4.56		
Chick-peas	59,735	15,747.65	134,944.80	8.57		
Lentils	26,706	3,291.71	20,405.63	6.20		
Grass peas	56,834	16,666.79	178,107.31	10.69		
Soya beans	*	*	*	*		
Fenugreek	4,549	73.86	241.74	3.27		
Gibto	29,386	4,222.59	38,947.78	9.22		
<u>Oilseeds</u>	178,675	37,683.63	196,263.76			
Neug	95,214	26,542.59	156,551.92	5.90		
Linseed	72,040	8,658.64	25,400.32	2.93		
Groundnuts	*	*	*	*		
Safflower	11,343	640.54	2,016.92	3.15		
Sesame	*	*	*	*		
Rape seed	49,391	1,841.86	12,294.59	6.68		
<u>Vegetables</u>	107,987	3,737.01	25,274.12			
Lettuce	435	0.26	*	*		
Head cabbage	2,433	9.33	*	*		
Ethiopian cabbage	6,205	22.43	*	*		
Tomatoes	1,739	9.79	*	*		
Green peppers	6,821	21.97	1,089.79	49.60		
Red peppers	93,719	3,664.30	24,184.33	6.60		
Swiss chard	1,212	8.94	*	*		
<u>Root crops</u>	230,519	10,295.75	477,659.76			
Beetroot	*	*	*	*		
Carrot	1,318	0.93	15.88	17.08		
Onion	11,878	164.95	21,938.85	133.00		
Potatoes	112,433	9,334.97	398,603.04	42.70		
Garlic	181,729	786.45	57,096.06	72.60		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	1,493	8.45	5.92	0.70		
<u>Fruit crops</u>	7,527	22.99	1,700.18			
Avocados	*	*	*	*		
Bananas	2,173	11.04	114.79	10.40		
Guavas	924	1.49	42.26	28.36		
Lemons	2,226	2.55	81.46	31.95		
Mangoes	879	1.93	231.79	120.10		
Oranges	1,306	2.00	262.74	131.37		
Papayas	2,221	3.99	967.14	242.39		
Pineapples	*	*	*	*		
Chat	2,567	6.74	52.57	7.80		
Coffee	12,384	80.04	160.09	2.00		
Hops	102,265	1,243.00	7,209.42	5.80		
Sugar cane	2,751	638.69	440,054.71	689.00		

Table 6.3 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

North Wolo

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	310,562	232,674.35	2,706,402.62			
<u>Cereals</u>	307,874	185,321.80	2,262,789.89			
Teff	177,469	58,382.00	496,942.21	8.51	8.49	12.87
Barley	165,534	29,753.93	425,565.33	14.30	14.35	17.50
Wheat	138,244	27,053.48	333,142.31	12.31	10.96	17.05
Maize	132,978	6,268.33	82,664.98	13.19	13.17	-
Sorghum	164,397	60,065.43	881,507.10	14.68	14.67	18.10
Finger millet	19,781	2,155.09	26,343.03	12.22	12.22	-
Oats / 'Aja'	19,433	1,643.53	16,624.93	10.12		
Rice	*	*	*	*		
<u>Pulses</u>	203,922	41,617.24	412,635.51			
Faba beans	117,557	12,295.90	133,390.53	10.85		
Field peas	81,545	7,973.98	79,924.71	10.02		
Haricot beans	11,865	858.70	1,523.19	1.77		
Chick-peas	50,978	8,620.37	91,920.19	10.66		
Lentils	63,580	8,699.60	68,204.41	7.84		
Grass peas	18,089	2,345.78	31,245.31	13.32		
Soya beans	336	25.32	194.94	7.70		
Fenugreek	19,774	797.60	6,232.22	7.81		
Gibto	*	*	*	*		
<u>Oilseeds</u>	82,719	5,735.30	30,977.22			
Neug	13,401	967.40	1,979.83	2.05		
Linseed	59,334	3,711.35	20,529.35	5.53		
Groundnuts	*	*	*	*		
Safflower	8,014	264.48	1,559.36	5.90		
Sesame	12,900	776.98	6,908.68	8.89		
Rape seed	3,506	15.09	*	*		
<u>Vegetables</u>	91,340	1,050.05	33,336.70			
Lettuce	338	0.22	*	*		
Head cabbage	1,811	3.13	*	*		
Ethiopian cabbage	33,043	233.30	22,163.59	95.00		
Tomatoes	2,718	7.34	*	*		
Green peppers	12,519	75.09	*	*		
Red peppers	48,163	725.53	11,173.11	15.40		
Swiss chard	2,480	5.45	*	*		
<u>Root crops</u>	96,233	1,871.98	111,974.15			
Beetroot	2,221	2.51	*	*		
Carrot	2,603	9.04	*	*		
Onion	15,632	469.51	62,445.35	133.00		
Potatoes	24,885	551.55	32,596.42	59.10		
Garlic	81,708	828.20	16,563.90	20.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	1,960	11.17	368.48	32.99		
<u>Fruit crops</u>	22,257	119.23	25,870.19	216.98		
Avocados	*	*	*	*		
Bananas	7,944	17.51	1,008.67	57.61		
Guavas	5,344	17.00	482.94	28.41		
Lemons	2,384	4.86	242.45	49.89		
Mangoes	711	0.50	*	*		
Oranges	9,911	76.49	23,704.67	309.91		
Papayas	2,687	2.86	431.46	150.86		
Pineapples	*	*	*	*		
Chat	5,434	56.52	531.26	9.40		
Coffee	30,078	540.47	2,594.29	4.80		
Hops	65,198	770.51	12,482.26	16.20		
Sugar cane	3,236	54.45	17,370.66	319.02		

Table 6.4 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

South Wolo

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	499,102	394,130.37	4,761,207.60			
<u>Cereals</u>	494,674	289,738.23	3,798,347.37			
Teff	280,788	74,483.92	758,323.57	10.18	9.67	14.13
Barley	218,398	35,735.42	448,555.23	12.55	12.57	15.60
Wheat	281,177	84,666.82	1,046,327.57	12.36	11.28	16.00
Maize	216,694	10,579.45	170,373.18	16.10	16.09	-
Sorghum	231,480	78,161.27	1,304,602.48	16.69	16.67	19.32
Finger millet	32,432	3,000.98	35,554.68	11.85	11.85	-
Oats / 'Aja'	49,386	3,110.36	34,610.66	11.13		
Rice	*	*	*	*		
<u>Pulses</u>	373,686	94,797.64	917,467.22			
Faba beans	232,190	28,314.82	318,430.58	11.25		
Field peas	135,487	16,781.70	144,116.91	8.59		
Haricot beans	56,952	4,867.75	57,266.55	11.76		
Chick-peas	107,109	13,521.56	159,969.56	11.83		
Lentils	121,927	20,901.18	129,370.53	6.19		
Grass peas	62,553	7,540.75	90,446.85	11.99		
Soya beans	*	*	*	*		
Fenugreek	41,982	2,869.88	17,866.25	6.23		
Gibto	*	*	*	*		
<u>Oilseeds</u>	116,759	9,594.50	45,393.00			
Neug	46,065	2,960.50	13,116.98	4.43		
Linseed	69,344	5,797.62	27,172.93	4.69		
Groundnuts	519	0.57	*	*		
Safflower	14,615	577.21	3,289.99	5.70		
Sesame	3,596	224.16	1,728.99	7.71		
Rape seed	4,388	34.46	84.11	2.44		
<u>Vegetables</u>	129,922	1,407.19	38,727.87			
Lettuce	963	0.79	*	*		
Head cabbage	7,565	32.35	2,976.11	92.00		
Ethiopian cabbage	20,518	49.78	4,729.02	95.00		
Tomatoes	7,718	152.28	10,004.78	65.70		
Green peppers	20,267	158.95	14,829.84	93.30		
Red peppers	83,651	998.08	6,188.12	6.20		
Swiss chard	6,602	14.95	*	*		
<u>Root crops</u>	130,223	1,167.89	67,615.51			
Beetroot	4,926	59.36	1,721.43	29.00		
Carrot	10,299	107.86	3,235.86	30.00		
Onion	20,019	242.98	26,193.78	107.80		
Potatoes	16,066	201.12	23,530.89	117.00		
Garlic	102,648	538.90	12,933.54	24.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	5,296	17.66	*	*		
<u>Fruit crops</u>	28,394	169.79	28,340.89			
Avocados	*	*	*	*		
Bananas	4,477	31.48	557.22	17.70		
Guavas	11,343	30.02	852.64	28.40		
Lemons	5,054	6.99	336.91	48.20		
Mangoes	1,636	2.37	*	*		
Oranges	15,828	80.89	24,922.15	308.10		
Papayas	5,191	18.04	1,671.96	92.68		
Pineapples	*	*	*	*		
Chat	49,157	2,165.59	27,069.97	12.50		
Coffee	35,714	668.43	3,342.29	5.00		
Hops	42,842	317.92	3,751.39	11.80		
Sugar cane	6,052	44.47	22,769.15	512.01		

Table 6.5 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

North Shewa

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	368,438	454,884.42	6,909,933.60			
<u>Cereals</u>	349,811	339,161.76	5,837,828.70			
Teff	227,354	100,589.42	1,404,604.01	13.96	13.67	14.91
Barley	146,847	52,073.27	896,830.09	17.22	16.73	19.63
Wheat	187,721	73,724.59	1,540,367.13	20.89	22.54	25.00
Maize	138,955	5,652.36	105,627.06	18.69	18.73	28.10
Sorghum	176,690	106,432.56	1,890,074.10	17.76	17.69	25.79
Finger millet	*	*	*	*	*	14.91
Oats / 'Aja'	1,461	689.55	326.33	0.47		
Rice	*	*	*	*		
<u>Pulses</u>	273,005	102,505.90	998,238.94			
Faba beans	204,698	46,936.18	535,295.41	11.40		
Field peas	78,098	15,098.60	105,397.64	6.98		
Haricot beans	31,568	2,767.46	15,191.33	5.49		
Chick-peas	88,046	21,244.48	210,884.59	9.93		
Lentils	81,242	10,555.11	66,032.21	6.26		
Grass peas	35,020	4,930.77	58,834.09	11.93		
Soya beans	*	*	*	*		
Fenugreek	28,206	973.30	6,603.67	6.78		
Gibto	*	*	*	*		
<u>Oilseeds</u>	130,142	13,216.76	73,865.96			
Neug	23,131	934.85	3,101.40	3.32		
Linseed	51,791	7,762.24	37,319.45	4.81		
Groundnuts	*	*	*	*		
Safflower	17,099	731.13	5,089.31	6.96		
Sesame	44,571	3,625.26	26,699.66	7.36		
Rape seed	11,820	163.28	1,656.14	10.14		
<u>Vegetables</u>	138,242	1,529.94	102,716.78			
Lettuce	405	0.13	1.26	9.69		
Head cabbage	5,202	42.98	*	*		
Ethiopian cabbage	42,522	78.87	7,887.05	100.00		
Tomatoes	3,581	12.74	535.16	42.01		
Green peppers	17,295	86.38	8,802.36	101.90		
Red peppers	91,961	1,307.20	85,490.94	65.40		
Swiss chard	2,452	1.64	*	*		
<u>Root crops</u>	188,590	3,376.24	394,563.28			
Beetroot	3,836	4.63	134.32	29.01		
Carrot	5,253	5.67	170.06	29.99		
Onion	106,975	2,463.25	367,516.39	149.20		
Potatoes	14,316	51.82	5,388.86	103.99		
Garlic	128,085	838.44	20,122.62	24.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	5,444	12.43	1,231.03	99.04		
<u>Fruit crops</u>	39,013	293.46	40,631.13			
Avocados	1,568	2.54	*	*		
Bananas	15,390	102.02	3,540.05	34.70		
Guavas	1,848	4.69	*	*		
Lemons	14,119	52.00	5,880.95	113.10		
Mangoes	442	0.39	41.94	107.54		
Oranges	17,280	83.51	25,095.80	300.51		
Papayas	10,387	48.31	6,072.39	125.70		
Pineapples	*	*	*	*		
Chat	9,387	35.88	157.85	4.40		
Coffee	55,344	779.01	2,259.13	2.90		
Hops	140,306	3,173.15	9,836.75	3.10		
Sugar cane	14,931	125.11	30,901.10	246.99		

Table 6.6 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

East Gojjam

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	390,960	484,575.53	5,629,883.78			
<u>Cereals</u>	388,777	382,664.40	4,690,850.81			
Teff	282,724	181,273.44	1,815,308.49	10.01	9.48	10.26
Barley	169,332	45,247.82	460,494.27	10.18	10.55	17.96
Wheat	239,798	88,241.60	1,206,708.73	13.68	11.59	15.64
Maize	261,354	37,760.48	676,908.74	17.93	16.26	19.79
Sorghum	61,175	29,681.59	529,006.20	17.82	17.81	-
Finger millet	3,385	459.48	2,424.38	5.28	11.11	-
Oats / 'Aja'	*	*	*	*		
Rice	*	*	*	*		
<u>Pulses</u>	264,815	70,381.57	778,211.25			
Faba beans	215,629	32,627.96	382,591.13	11.73		
Field peas	69,421	10,374.81	82,238.13	7.93		
Haricot beans	8,278	474.39	5,310.18	11.19		
Chick-peas	35,719	6,453.66	61,045.87	9.46		
Lentils	11,150	1,761.28	9,765.05	5.54		
Grass peas	68,707	17,958.07	231,648.59	12.90		
Soya beans	*	*	*	*		
Fenugreek	6,015	115.07	581.13	5.05		
Gibto	8,028	616.34	5,031.18	8.16		
<u>Oilseeds</u>	140,574	31,529.55	160,821.72			
Neug	80,513	20,295.21	77,525.41	3.82		
Linseed	33,019	5,917.45	22,815.36	3.86		
Groundnuts	*	*	*	*		
Safflower	1,066	33.58	199.86	5.95		
Sesame	14,695	2,812.00	32,128.30	11.43		
Rape seed	56,305	2,471.31	28,152.80	11.39		
<u>Vegetables</u>	100,682	1,149.55	90,557.29			
Lettuce	354	0.60	*	*		
Head cabbage	3,712	11.89	1,415.00	119.01		
Ethiopian cabbage	7,913	33.97	2,686.64	79.09		
Tomatoes	1,661	2.43	*	*		
Green peppers	24,874	69.67	7,273.80	104.40		
Red peppers	67,137	1,028.33	79,181.85	77.00		
Swiss chard	1,309	2.66	*	*		
<u>Root crops</u>	180,939	6,989.45	815,337.34			
Beetroot	9,014	11.07	321.00	29.00		
Carrot	1,731	2.54	118.56	46.68		
Onion	30,680	655.06	60,593.08	92.50		
Potatoes	69,790	5,596.01	670,961.07	119.90		
Garlic	127,793	724.52	83,320.71	115.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	385	0.25	22.92	91.68		
<u>Fruit crops</u>	8,324	36.47	24.61			
Avocados	*	*	*	*		
Bananas	2,607	11.30	*	*		
Guavas	445	0.11	*	*		
Lemons	3,963	5.31	*	*		
Mangoes	1,302	1.23	*	*		
Oranges	4,389	10.25	24.61	2.40		
Papayas	3,514	8.26	*	*		
Pineapples	*	*	*	*		
Chat	4,376	14.74	*	*		
Coffee	8,163	47.10	*	*		
Hops	132,023	1,967.33	20,657.06	10.50		
Sugar cane	4,746	77.24	*	*		

Table 6.7 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

West Gojjam

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	396,200	514,987.92	6,970,770.46			
<u>Cereals</u>	394,820	388,192.95	5,952,305.49			
Teff	277,372	133,209.29	1,124,255.76	8.44	7.29	9.16
Barley	128,786	31,792.65	402,950.82	12.67	13.29	16.33
Wheat	116,414	37,229.40	643,836.05	17.29	11.47	19.96
Maize	375,057	133,775.50	3,235,130.79	24.18	21.34	27.40
Sorghum	10,323	2,398.48	37,489.77	15.63	15.63	-
Finger millet	138,240	49,772.21	508,516.22	10.22	10.16	15.60
Oats / 'Aja'	812	15.42	126.07	8.18		
Rice	*	*	*	*		
<u>Pulses</u>	226,751	67,364.74	711,193.97			
Faba beans	149,028	26,175.15	289,877.53	11.07		
Field peas	54,194	10,742.77	97,390.18	9.07		
Haricot beans	16,502	1,533.75	12,463.79	8.13		
Chick-peas	41,793	11,957.98	119,091.82	9.96		
Lentils	2,222	230.98	*	*		
Grass peas	50,517	12,202.82	152,732.66	12.52		
Soya beans	*	*	*	*		
Fenugreek	4,982	58.29	317.77	5.45		
Gibto	32,106	4,463.01	39,320.20	8.81		
<u>Oilseeds</u>	222,693	59,430.23	307,271.01			
Neug	118,706	44,237.78	172,502.92	3.90		
Linseed	40,188	4,711.85	21,407.10	4.54		
Groundnuts	*	*	*	*		
Safflower	3,756	50.92	107.58	2.11		
Sesame	4,206	830.46	3,535.71	4.26		
Rape seed	138,339	9,599.22	109,717.70	11.43		
<u>Vegetables</u>	250,431	9,593.27	122,011.60			
Lettuce	856	1.10	*	*		
Head cabbage	3,791	11.22	1,031.99	91.98		
Ethiopian cabbage	*	*	*	*		
Tomatoes	5,221	19.22	1,648.99	85.80		
Green peppers	8,774	21.43	1,984.81	92.62		
Red peppers	242,527	9,540.31	117,345.81	12.30		
Swiss chard	*	*	*	*		
<u>Root crops</u>	231,586	5,713.77	585,710.98			
Beetroot	4,225	17.79	1,099.35	61.80		
Carrot	1,629	6.12	117.44	19.19		
Onion	26,448	883.91	146,198.59	165.40		
Potatoes	78,200	3,866.55	417,587.90	108.00		
Garlic	166,662	838.42	20,122.01	24.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	6,456	100.98	585.68	5.80		
<u>Fruit crops</u>	27,020	435.02	44,513.65			
Avocados	2,594	2.68	*	*		
Bananas	8,216	138.80	8,244.65	59.40		
Guavas	3,841	25.35	697.21	27.50		
Lemons	11,032	45.66	8,592.96	188.19		
Mangoes	3,418	24.00	2,721.75	113.41		
Oranges	3,339	22.65	3,732.21	164.78		
Papayas	10,153	175.88	20,524.88	116.70		
Pineapples	*	*	*	*		
Chat	18,818	269.30	2,262.09	8.40		
Coffee	38,621	1,785.81	12,679.23	7.10		
Hops	155,320	2,525.93	34,100.04	13.50		
Sugar cane	7,107	433.09	436,817.24	1,008.61		

Table 9.8 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Waghemra

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	77,637	96,342.82	1,117,813.48			
<u>Cereals</u>	76,326	78,160.49	931,633.55			
Teff	56,572	23,864.71	232,596.08	9.75	9.49	15.96
Barley	51,716	16,395.11	187,726.86	11.45	11.45	-
Wheat	32,677	8,336.65	95,899.00	11.50	11.00	17.77
Maize	49,560	2,172.96	24,490.02	11.27	11.27	-
Sorghum	51,217	26,813.10	386,360.72	14.41	14.41	-
Finger millet	3,497	495.56	4,560.87	9.20	9.20	-
Oats / 'Aja'	163	82.40	*	*		
Rice	*	*	*	*		
<u>Pulses</u>	52,948	14,886.16	159,064.56			
Faba beans	34,672	7,819.49	92,170.51	11.79		
Field peas	14,405	2,579.28	28,262.95	10.96		
Haricot beans	11,838	1,381.88	12,522.58	9.06		
Chick-peas	3,209	687.48	7,007.84	10.19		
Lentils	16,229	2,398.18	18,943.91	7.90		
Grass peas	164	0.55	*	*		
Soya beans	*	*	*	*		
Fenugreek	2,575	19.30	156.77	8.12		
Gibto	*	*	*	*		
<u>Oilseeds</u>	34,344	3,296.17	27,115.36			
Neug	4,673	314.10	1,749.60	5.57		
Linseed	24,627	1,692.24	9,268.60	5.48		
Groundnuts	*	*	*	*		
Safflower	13,858	727.97	7,711.19	10.59		
Sesame	3,013	558.27	8,378.86	15.01		
Rape seed	573	3.59	7.11	1.98		
<u>Vegetables</u>	4,487	49.86	1,129.21			
Lettuce	*	*	*	*		
Head cabbage	727	1.94	231.26	119.21		
Ethiopian cabbage	126	0.20	*	*		
Tomatoes	1,163	3.24	437.58	135.06		
Green peppers	1,129	9.43	460.38	48.82		
Red peppers	2,943	34.74	*	*		
Swiss chard	154	0.29	*	*		
<u>Root crops</u>	12,827	108.83	8,339.89			
Beetroot	280	0.21	6.74	32.10		
Carrot	*	*	*	*		
Onion	863	8.83	1,093.60	123.85		
Potatoes	6,015	61.93	*	*		
Garlic	9,110	32.00	3,792.32	118.51		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	161	5.86	3,447.22	588.26		
<u>Fruit crops</u>	2,662	15.46	1,211.55			
Avocados	*	*	*	*		
Bananas	1,948	10.15	1,026.79	101.16		
Guavas	272	0.71	19.20	27.04		
Lemons	156	0.28	5.73	20.46		
Mangoes	156	0.15	*	*		
Oranges	126	0.35	*	*		
Papayas	988	3.82	159.82	41.84		
Pineapples	*	*	*	*		
Chat	*	*	*	*		
Coffee	890	1.33	2.25	1.69		
Hops	4,025	14.31	67.24	4.70		
Sugar cane	277	7.89	*	*		

Table 6.9 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Aw

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	166,358	254,105.20	2,942,547.26			
<u>Cereals</u>	165,992	211,562.39	2,706,035.49			
Teff	117,802	79,654.59	584,563.04	7.34	7.12	10.90
Barley	55,946	16,258.11	129,259.66	7.95	8.13	9.91
Wheat	38,063	11,308.49	109,133.26	9.65	9.86	13.26
Maize	154,535	52,687.55	1,322,867.62	25.11	20.09	32.11
Sorghum	5,018	1,744.86	18,562.82	10.64	10.54	-
Finger millet	74,057	49,821.20	541,088.55	10.86	9.84	15.90
Oats / 'Aja'	1,195	87.58	560.54	6.40		
Rice	*	*	*	*		
<u>Pulses</u>	48,757	13,250.08	105,796.74			
Faba beans	18,967	2,759.18	26,600.58	9.64		
Field peas	10,015	1,671.58	8,718.41	5.22		
Haricot beans	5,519	2,218.58	16,630.65	7.50		
Chick-peas	3,184	1,293.60	7,394.00	5.72		
Lentils	*	*	*	*		
Grass peas	1,871	642.37	6,311.09	9.82		
Soya beans	503	4.46	3.81	0.85		
Fenugreek	5,271	27.71	121.97	4.40		
Gibto	18,725	4,632.60	40,016.23	8.64		
<u>Oilseeds</u>	77,369	29,292.74	130,715.03			
Neug	49,852	23,476.41	85,427.64	3.64		
Linseed	6,344	804.67	1,750.73	2.18		
Groundnuts	6,596	1,036.29	13,396.68	12.93		
Safflower	558	13.32	*	*		
Sesame	6,557	2,124.58	10,329.74	4.86		
Rape seed	27,800	1,837.48	19,810.25	10.78		
<u>Vegetables</u>	83,340	3,637.99	48,001.03			
Lettuce	266	0.08	*	*		
Head cabbage	2,113	30.86	3,455.92	111.99		
Ethiopian cabbage	8,471	37.92	3,223.45	85.01		
Tomatoes	4,835	51.84	8,091.74	156.09		
Green peppers	4,682	35.10	1,891.73	53.90		
Red peppers	72,764	3,482.02	31,338.20	9.00		
Swiss chard	249	0.18	*	*		
<u>Root crops</u>	85,118	4,544.32	27,418.32			
Beetroot	1,530	1.67	52.43	31.40		
Carrot	1,297	2.69	51.17	19.02		
Onion	9,686	301.33	1,808.01	6.00		
Potatoes	52,565	3,890.70	12,839.30	3.30		
Garlic	40,292	243.54	11,957.64	49.10		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	8,084	104.38	709.77	6.80		
<u>Fruit crops</u>	28,082	408.73	24,181.65			
Avocados	1,304	26.08	2,055.44	78.81		
Bananas	9,858	74.02	1,976.43	26.70		
Guavas	713	3.32	*	*		
Lemons	7,563	25.12	5,383.72	214.32		
Mangoes	5,680	38.39	*	*		
Oranges	13,381	217.27	6,887.38	31.70		
Papayas	7,006	23.95	7,878.67	328.96		
Pineapples	242	0.56	*	*		
Chat	2,536	9.84	*	*		
Coffee	28,255	559.67	1,511.12	2.70		
Hops	64,642	828.30	6,129.37	7.40		
Sugar cane	13,658	215.94	189,661.55	878.31		

Table 6.10 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Oromia Zone

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	75,541	54,220.56	763,283.32			
<u>Cereals</u>	74,962	47,872.97	698,054.59			
Teff	25,300	6,696.76	80,070.37	11.96	11.70	13.63
Barley	5,849	346.25	3,905.05	11.28	11.28	-
Wheat	756	42.00	207.62	4.94	4.94	-
Maize	49,692	4,919.24	82,915.33	16.86	16.86	-
Sorghum	65,222	35,599.11	528,730.42	14.85	14.85	-
Finger millet	2,929	255.16	2,108.48	8.26	8.26	-
Oats / 'Aja'	282	14.44	117.32	8.12		
Rice	*	*	*	*		
<u>Pulses</u>	20,631	2,091.14	22,602.70			
Faba beans	1,977	206.55	3,222.18	15.60		
Field peas	3,597	342.76	3,869.86	11.29		
Haricot beans	13,839	986.14	10,024.71	10.17		
Chick-peas	2,819	489.81	5,094.02	10.40		
Lentils	2,084	64.88	391.93	6.04		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	421	1.00	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	35,990	4,256.45	42,626.03			
Neug	4,303	226.20	1,545.39	6.83		
Linseed	3,263	55.71	98.09	1.76		
Groundnuts	849	34.55	148.60	4.30		
Safflower	8,819	252.21	2,815.78	11.16		
Sesame	29,438	3,604.84	37,789.53	10.48		
Rape seed	1,503	82.95	228.64	2.76		
<u>Vegetables</u>	32,604	1,048.55	25,402.22			
Lettuce	*	*	*	*		
Head cabbage	152	0.09	*	*		
Ethiopian cabbage	1,335	9.36	767.83	82.03		
Tomatoes	781	14.10	1,864.50	132.23		
Green peppers	3,870	61.46	608.42	9.90		
Red peppers	28,727	963.54	22,161.47	23.00		
Swiss chard	*	*	*	*		
<u>Root crops</u>	3,136	27.20	1,724.45			
Beetroot	*	*	*	*		
Carrot	*	*	*	*		
Onion	1,660	12.25	293.97	24.00		
Potatoes	157	0.37	20.46	55.30		
Garlic	1,676	11.79	1,037.14	87.97		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	251	2.80	372.88	133.17		
<u>Fruit crops</u>	23,250	200.22	9,650.87			
Avocados	462	10.54	*	*		
Bananas	3,087	47.91	1,811.01	37.80		
Guavas	7,242	29.38	828.42	28.20		
Lemons	4,940	14.46	1,190.01	82.30		
Mangoes	3,065	20.77	*	*		
Oranges	3,217	27.61	2,164.85	78.41		
Papayas	12,785	49.55	3,656.58	73.80		
Pineapples	*	*	*	*		
Chat	13,858	884.51	7,872.18	8.90		
Coffee	9,190	251.09	903.92	3.60		
Hops	457	1.75	20.67	11.81		
Sugar cane	1,343	30.93	29,091.18	940.55		

Table 7.2 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

East Welega

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	306,785	443,508.16	6,378,748.13			
<u>Cereals</u>	302,420	322,748.78	5,644,599.32			
Teff	166,367	101,731.44	979,065.67	9.62	9.29	12.25
Barley	66,996	16,682.52	188,036.84	11.27	11.30	16.91
Wheat	110,896	38,473.42	637,646.17	16.57	15.98	19.89
Maize	274,592	109,482.61	2,906,448.11	26.55	21.55	37.49
Sorghum	110,566	34,322.94	672,551.43	19.59	18.57	-
Finger millet	66,612	21,801.78	259,295.60	11.89	11.64	16.48
Oats / 'Aja'	5,287	202.19	1,120.64	5.54		
Rice	719	51.88	434.85	8.38		
<u>Pulses</u>	127,502	21,328.24	202,855.04			
Faba beans	99,529	13,560.99	130,469.46	9.62		
Field peas	31,824	5,401.46	48,067.45	8.90		
Haricot beans	14,334	1,368.69	13,625.06	9.95		
Chick-peas	2,619	182.94	376.91	2.06		
Lentils	1,196	44.51	208.72	4.69		
Grass peas	19	0.70	*	*		
Soya beans	1,004	584.79	9,797.86	16.75		
Fenugreek	15,566	184.15	309.60	1.68		
Gibto	*	*	*	*		
<u>Oilseeds</u>	195,865	99,431.15	531,293.76			
Neug	140,211	68,760.07	312,047.75	4.54		
Linseed	7,928	642.66	1,809.43	2.82		
Groundnuts	15,899	2,469.87	29,425.48	11.91		
Safflower	4,451	324.77	1,534.76	4.73		
Sesame	59,467	26,498.92	182,532.30	6.89		
Rape seed	14,420	734.85	3,944.04	5.37		
<u>Vegetables</u>	114,155	2,094.28	55,170.88			
Lettuce	69	0.11	*	*		
Head cabbage	4,008	13.40	*	*		
Ethiopian cabbage	5,896	55.99	5,755.44	102.79		
Tomatoes	278	0.25	*	*		
Green peppers	47,037	325.65	34,127.72	104.80		
Red peppers	63,303	1,698.63	15,287.71	9.00		
Swiss chard	78	0.26	*	*		
<u>Root crops</u>	118,490	1,292.18	122,420.22			
Beetroot	17,503	45.43	3,357.10	73.90		
Carrot	8,270	17.38	2,102.70	120.98		
Onion	19,771	97.32	9,030.86	92.80		
Potatoes	13,194	538.83	31,306.08	58.10		
Garlic	88,293	388.87	57,007.83	146.60		
Taro / 'Godere'	1,909	7.97	427.73	53.67		
Sweet potatoes	12,514	196.40	19,187.93	97.70		
<u>Fruit crops</u>	54,883	810.39	76,527.65			
Avocados	21	*	*	*		
Bananas	32,564	300.56	11,962.43	39.80		
Guavas	*	*	*	*		
Lemons	3,130	6.22	771.32	124.01		
Mangoes	24,361	478.25	54,950.94	114.90		
Oranges	1,006	10.59	2,504.54	236.50		
Papayas	5,129	14.78	6,338.42	428.85		
Pineapples	*	*	*	*		
Chat	29,628	1,428.69	17,715.80	12.40		
Coffee	31,089	2,017.88	11,905.47	5.90		
Hops	70,348	908.70	16,174.84	17.80		
Sugar cane	3,525	151.01	*	*		

Table 7.5 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

West Shewa

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	423,025	550,621.49	9,348,759.33			
<u>Cereals</u>	418,824	462,195.38	8,333,550.99			
Teff	201,692	117,680.56	1,581,343.64	13.44	13.27	14.11
Barley	186,251	86,761.68	1,390,139.66	16.02	15.08	16.16
Wheat	264,200	145,596.31	2,804,757.57	19.26	19.36	23.28
Maize	249,559	58,105.47	1,603,274.96	27.59	24.41	33.57
Sorghum	123,829	47,779.68	889,582.91	18.62	18.60	19.00
Finger millet	411	10.69	103.93	9.72	10.10	-
Oats / 'Aja'	35,648	6,260.97	64,348.31	10.28		
Rice	*	*	*	*		
<u>Pulses</u>	198,417	48,706.48	711,855.40			
Faba beans	157,895	26,861.15	402,034.92	14.97		
Field peas	42,878	8,294.71	114,188.03	13.77		
Haricot beans	8,925	93.78	964.01	10.28		
Chick-peas	14,876	3,579.24	56,928.39	15.91		
Lentils	18,878	2,043.96	18,709.46	9.15		
Grass peas	25,443	6,484.19	98,438.16	15.18		
Soya beans	3,519	1,226.69	19,136.39	15.60		
Fenugreek	8,230	122.77	1,456.04	11.86		
Gibto	*	*	*	*		
<u>Oilseeds</u>	124,865	39,719.63	303,352.94			
Neug	38,151	13,248.36	92,487.83	6.98		
Linseed	77,537	22,881.55	180,362.37	7.88		
Groundnuts	411	0.32	0.07	0.22		
Safflower	1,662	44.60	450.75	10.11		
Sesame	5,410	2,356.89	18,613.43	7.90		
Rape seed	23,093	1,187.91	11,438.49	9.63		
<u>Vegetables</u>	190,478	3,425.97	100,065.62			
Lettuce	4,664	18.61	*	*		
Head cabbage	12,799	67.36	7,072.60	105.00		
Ethiopian cabbage	94,728	745.42	49,197.93	66.00		
Tomatoes	787	52.39	4,107.18	78.40		
Green peppers	71,949	753.09	39,687.91	52.70		
Red peppers	49,990	1,781.55	*	*		
Swiss chard	4,575	7.55	*	*		
<u>Root crops</u>	206,263	4,413.44	323,853.98			
Beetroot	18,101	60.41	7,793.48	129.01		
Carrot	6,923	13.41	2,328.16	173.61		
Onion	53,283	238.71	17,354.21	72.70		
Potatoes	48,666	2,763.17	177,948.33	64.40		
Garlic	171,003	1,034.32	118,429.80	114.50		
Taro / 'Godere'	1,227	2.11	*	*		
Sweet potatoes	10,333	301.30	*	*		
<u>Fruit crops</u>	24,378	235.21	*	*		
Avocados	706	1.79	*	*		
Bananas	10,121	115.43	*	*		
Guavas	1,593	7.83	*	*		
Lemons	4,824	10.98	*	*		
Mangoes	11,252	86.65	*	*		
Oranges	4,466	10.61	*	*		
Papayas	1,972	1.91	*	*		
Pineapples	*	*	*	*		
Chat	17,155	453.79	*	*		
Coffee	18,359	157.48	*	*		
Hops	124,784	885.56	6,995.96	7.90		
Sugar cane	10,808	325.42	*	*		

Table 7.6 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

North Shewa

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	268,907	370,740.53	4,023,975.56			
<u>Cereals</u>	265,121	291,966.86	3,367,414.18			
Teff	165,220	95,414.57	892,180.50	9.35	9.24	13.40
Barley	116,917	81,061.61	884,305.50	10.91	10.65	15.48
Wheat	139,553	55,242.06	724,023.45	13.11	11.29	14.83
Maize	89,790	5,870.05	61,962.31	10.56	10.56	-
Sorghum	84,507	53,299.86	795,121.43	14.92	14.92	-
Finger millet	354	61.94	*	*	9.24	-
Oats / 'Aja'	9,428	1,016.78	9,821.00	9.66		
Rice	*	*	*	*		
<u>Pulses</u>	156,608	66,837.01	602,002.01			
Faba beans	117,939	35,380.29	340,934.67	9.64		
Field peas	41,380	6,467.80	42,483.17	6.57		
Haricot beans	1,907	73.00	544.48	7.46		
Chick-peas	15,937	5,136.11	47,677.69	9.28		
Lentils	46,130	9,514.62	43,276.58	4.55		
Grass peas	39,578	9,793.61	125,430.04	12.81		
Soya beans	*	*	*	*		
Fenugreek	5,299	471.59	1,655.36	3.51		
Gibto	*	*	*	*		
<u>Oilseeds</u>	62,601	11,936.66	54,559.37			
Neug	16,308	2,688.07	10,615.33	3.95		
Linseed	35,936	7,957.28	36,815.95	4.63		
Groundnuts	*	*	*	*		
Safflower	7,461	1,170.58	6,530.71	5.58		
Sesame	615	69.36	363.03	5.23		
Rape seed	5,911	51.36	234.34	4.56		
<u>Vegetables</u>	75,829	446.41	40,314.55			
Lettuce	332	0.14	*	*		
Head cabbage	759	0.37	*	*		
Ethiopian cabbage	41,766	147.94	14,498.09	98.00		
Tomatoes	359	0.38	*	*		
Green peppers	28,653	224.51	22,451.38	100.00		
Red peppers	5,171	70.40	3,365.07	47.80		
Swiss chard	4,387	2.66	*	*		
<u>Root crops</u>	101,378	895.46	115,270.66			
Beetroot	5,634	21.15	2,707.54	128.02		
Carrot	2,219	31.38	*	*		
Onion	6,772	212.81	28,516.97	134.00		
Potatoes	3,231	54.31	*	*		
Garlic	96,087	571.74	84,046.15	147.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	807	4.06	*	*		
<u>Fruit crops</u>	9,440	515.95	6,707.48			
Avocados	*	*	*	*		
Bananas	5,338	157.24	3,931.04	25.00		
Guavas	*	*	*	*		
Lemons	662	0.41	19.10	46.59		
Mangoes	347	0.21	*	*		
Oranges	*	*	*	*		
Papayas	5,323	358.10	2,757.34	7.70		
Pineapples	*	*	*	*		
Chat	9,578	2,753.85	34,147.69	12.40		
Coffee	3,752	69.40	562.14	8.10		
Hops	30,041	181.55	2,142.26	11.80		
Sugar cane	1,187	44.82	5,790.26	129.19		

Table 7.7 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

East Shewa

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	399,055	495,951.36	9,062,147.21			
<u>Cereals</u>	391,062	416,683.12	8,315,908.81			
Teff	206,916	151,470.50	2,078,206.08	13.72	13.48	16.29
Barley	83,036	18,079.49	295,093.70	16.32	16.65	19.70
Wheat	159,626	88,265.30	1,748,304.72	19.81	19.21	24.85
Maize	287,205	139,373.25	3,894,270.28	27.94	26.23	31.30
Sorghum	84,694	13,626.49	236,875.02	17.38	17.42	-
Finger millet	35,435	3,897.63	61,130.58	15.68	15.57	16.34
Oats / 'Aja'	11,087	1,970.45	2,028.42	1.03		
Rice	*	*	*	*		
<u>Pulses</u>	213,601	77,451.82	739,050.78			
Faba beans	58,194	7,766.99	74,868.14	9.64		
Field peas	39,610	10,865.52	50,143.32	4.61		
Haricot beans	133,155	28,861.14	274,671.63	9.52		
Chick-peas	38,474	15,722.91	177,613.35	11.30		
Lentils	30,509	7,883.93	88,147.18	11.18		
Grass peas	35,069	6,165.32	73,284.72	11.89		
Soya beans	*	*	*	*		
Fenugreek	6,384	186.01	322.43	1.73		
Gibto	*	*	*	*		
<u>Oilseeds</u>	34,225	1,816.42	7,187.62			
Neug	1,000	9.44	*	*		
Linseed	9,244	642.56	2,268.22	3.53		
Groundnuts	*	*	*	*		
Safflower	2,659	66.52	*	*		
Sesame	11,830	827.82	3,999.11	4.83		
Rape seed	11,166	270.09	920.28	3.41		
<u>Vegetables</u>	105,199	3,149.98	281,242.58			
Lettuce	769	0.94	*	*		
Head cabbage	4,031	133.92	15,935.92	119.00		
Ethiopian cabbage	68,383	862.93	84,049.78	97.40		
Tomatoes	8,217	609.96	54,408.57	89.20		
Green peppers	35,747	521.38	47,081.03	90.30		
Red peppers	17,741	1,014.85	79,767.28	78.60		
Swiss chard	1,248	5.99	*	*		
<u>Root crops</u>	74,517	8,469.83	727,879.42			
Beetroot	5,509	219.67	28,557.64	130.00		
Carrot	3,908	116.18	14,173.60	122.00		
Onion	24,536	556.31	74,545.65	134.00		
Potatoes	35,977	7,226.65	569,460.14	78.80		
Garlic	22,350	174.28	21,435.94	123.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	2,784	176.74	19,706.45	111.50		
<u>Fruit crops</u>	9,944	271.70	15,404.99			
Avocados	785	2.23	106.54	47.78		
Bananas	5,624	231.94	13,313.15	57.40		
Guavas	1,993	4.95	13.36	2.70		
Lemons	1,077	2.10	2.52	1.20		
Mangoes	2,006	7.62	*	*		
Oranges	538	1.84	297.97	161.94		
Papayas	4,234	21.02	1,671.45	79.52		
Pineapples	*	*	*	*		
Chat	5,633	243.09	2,552.44	10.50		
Coffee	3,105	367.69	*	*		
Hops	30,676	867.31	5,117.11	5.90		
Sugar cane	4,949	993.42	431,839.69	434.70		

Table 7.8 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Arsi

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	539,478	603,343.29	8,676,457.54			
<u>Cereals</u>	523,145	480,609.99	7,651,424.34			
Teff	200,060	90,846.13	711,722.06	7.83	7.64	9.35
Barley	264,409	92,983.72	1,352,027.71	14.54	13.28	18.49
Wheat	325,234	190,525.58	3,330,402.92	17.48	16.28	19.36
Maize	312,499	72,312.66	1,673,434.85	23.14	20.67	31.71
Sorghum	110,852	30,020.76	539,070.54	17.96	17.94	30.60
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	40,400	3,921.14	44,766.27	11.42		
Rice	*	*	*	*		
<u>Pulses</u>	265,274	51,525.25	549,614.58			
Faba beans	160,514	24,668.48	342,815.56	13.90		
Field peas	72,257	13,573.99	105,510.71	7.77		
Haricot beans	72,244	6,303.56	54,005.16	8.57		
Chick-peas	6,554	758.19	7,205.78	9.50		
Lentils	36,116	2,316.20	10,021.78	4.33		
Grass peas	22,538	2,967.77	23,434.78	7.90		
Soya beans	540	25.25	171.71	6.80		
Fenugreek	14,106	911.82	6,449.11	7.07		
Gibto	*	*	*	*		
<u>Oilseeds</u>	195,962	71,208.05	475,418.61			
Neug	17,838	4,928.97	21,975.32	4.46		
Linseed	157,966	62,154.73	415,435.51	6.68		
Groundnuts	3,947	353.85	1,804.65	5.10		
Safflower	2,601	42.33	418.10	9.88		
Sesame	*	*	*	*		
Rape seed	37,257	3,728.16	35,785.03	9.60		
<u>Vegetables</u>	167,652	8,349.25	333,806.18			
Lettuce	2,615	4.08	*	*		
Head cabbage	8,737	94.45	*	*		
Ethiopian cabbage	72,826	799.09	22,374.58	28.00		
Tomatoes	13,721	2,709.35	211,329.63	78.00		
Green peppers	37,692	455.25	24,264.98	53.30		
Red peppers	49,323	4,284.57	75,836.98	17.70		
Swiss chard	1,618	2.45	*	*		
<u>Root crops</u>	183,974	12,025.84	963,790.57			
Beetroot	22,804	270.45	33,806.94	125.00		
Carrot	9,005	154.70	9,808.09	63.40		
Onion	70,923	4,768.47	393,399.28	82.50		
Potatoes	70,867	5,402.67	377,106.29	69.80		
Garlic	74,905	844.20	122,071.06	144.60		
Taro / 'Godere'	3,024	9.16	*	*		
Sweet potatoes	11,223	576.18	27,598.90	47.90		
<u>Fruit crops</u>	38,408	540.62	135,604.02			
Avocados	1,012	3.31	*	*		
Bananas	19,745	157.27	6,636.78	42.20		
Guavas	6,393	15.03	*	*		
Lemons	3,289	5.06	*	*		
Mangoes	3,849	48.21	*	*		
Oranges	10,233	45.31	7,901.64	174.39		
Papayas	14,919	266.43	121,065.60	454.40		
Pineapples	*	*	*	*		
Chat	51,013	3,903.36	53,866.36	13.80		
Coffee	48,488	5,735.23	41,867.14	7.30		
Hops	41,098	636.38	4,072.86	6.40		
Sugar cane	12,985	1,075.09	217,704.86	202.50		

Table 7.9 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

West Harerge

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	304,944	197,010.35	2,584,152.00			
<u>Cereals</u>	302,500	165,624.17	2,276,969.48			
Teff	58,664	11,662.99	114,335.05	9.80	9.93	10.37
Barley	67,202	5,762.56	52,335.08	9.08	9.31	10.24
Wheat	50,999	5,879.93	79,052.47	13.44	12.29	15.16
Maize	233,106	44,046.47	743,178.64	16.87	16.15	23.45
Sorghum	235,816	96,086.19	1,266,795.54	13.18	12.94	18.07
Finger millet	21,322	1,680.43	15,473.76	9.21	9.61	14.10
Oats / 'Aja'	11,068	505.60	5,798.93	11.47		
Rice	*	*	*	*		
<u>Pulses</u>	147,837	17,822.84	213,850.60			
Faba beans	17,679	2,027.71	34,858.39	17.19		
Field peas	2,855	301.69	2,325.17	7.71		
Haricot beans	120,288	13,066.76	155,074.62	11.87		
Chick-peas	13,146	1,323.83	16,468.63	12.44		
Lentils	9,544	507.67	1,892.20	3.73		
Grass peas	375	26.09	*	*		
Soya beans	*	*	*	*		
Fenugreek	21,788	569.09	3,231.60	5.68		
Gibto	*	*	*	*		
<u>Oilseeds</u>	86,362	13,563.35	93,331.92			
Neug	*	*	*	*		
Linseed	32,490	1,295.82	5,800.12	4.48		
Groundnuts	46,807	9,667.00	63,848.68	6.60		
Safflower	2,125	23.26	9.67	0.42		
Sesame	25,298	2,433.80	23,460.83	9.64		
Rape seed	2,816	143.47	212.63	1.48		
<u>Vegetables</u>	66,517	4,818.50	112,081.02			
Lettuce	*	*	*	*		
Head cabbage	1,446	15.53	1,847.74	118.98		
Ethiopian cabbage	769	5.02	502.10	100.02		
Tomatoes	3,326	72.03	*	*		
Green peppers	13,125	192.78	11,817.18	61.30		
Red peppers	51,265	4,533.06	97,914.01	21.60		
Swiss chard	335	0.08	*	*		
<u>Root crops</u>	97,637	4,633.95	215,513.95			
Beetroot	2,437	13.60	435.34	32.01		
Carrot	1,389	12.29	*	*		
Onion	36,328	1,331.67	179,774.90	135.00		
Potatoes	4,995	58.56	3,941.04	67.30		
Garlic	2,631	24.56	1,984.53	80.80		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	70,645	3,193.28	29,378.14	9.20		
<u>Fruit crops</u>	66,253	903.44	120,403.86			
Avocados	981	12.68	329.61	25.99		
Bananas	28,094	545.08	51,183.30	93.90		
Guavas	25,425	118.54	3,307.16	27.90		
Lemons	5,541	9.61	638.79	66.47		
Mangoes	11,236	69.61	8,332.89	119.71		
Oranges	9,577	26.77	4,382.54	163.71		
Papayas	19,175	121.15	52,229.57	431.11		
Pineapples	*	*	*	*		
Chat	199,693	26,262.70	212,727.88	8.10		
Coffee	123,332	14,361.85	136,437.65	9.50		
Hops	5,078	39.00	206.68	5.30		
Sugar cane	12,042	246.93	311,353.13	1,260.90		

Table 7.10 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

East Harerge

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	442,913	256,518.26	2,942,400.69			
<u>Cereals</u>	440,806	212,721.98	2,566,291.23			
Teff	41,672	3,198.01	24,462.55	7.65	7.86	10.90
Barley	78,590	10,900.50	114,170.92	10.47	10.21	11.89
Wheat	126,517	44,864.42	240,171.89	5.35	10.82	28.77
Maize	370,596	56,910.85	1,075,239.57	18.89	16.94	26.66
Sorghum	329,713	92,382.20	1,104,634.22	11.96	11.75	16.52
Finger millet	484	5.92	*	*	*	-
Oats / 'Aja'	27,564	4,460.08	7,612.08	1.71		
Rice	*	*	*	*		
<u>Pulses</u>	188,269	21,093.29	216,551.39			
Faba beans	37,172	5,122.68	74,099.92	14.47		
Field peas	22,385	4,738.58	13,825.34	2.92		
Haricot beans	115,099	7,651.01	111,138.03	14.53		
Chick-peas	6,445	203.60	1,219.70	5.99		
Lentils	30,392	1,212.94	8,324.39	6.86		
Grass peas	7,702	1,207.03	*	*		
Soya beans	*	*	*	*		
Fenugreek	46,804	957.44	7,944.01	8.30		
Gibto	*	*	*	*		
<u>Oilseeds</u>	121,651	22,702.99	159,558.06			
Neug	2,983	170.69	*	*		
Linseed	56,027	7,726.11	9,953.94	1.29		
Groundnuts	65,916	14,505.28	147,862.41	10.19		
Safflower	*	*	*	*		
Sesame	7,960	297.47	1,741.71	5.86		
Rape seed	584	3.44	*	*		
<u>Vegetables</u>	50,949	1,109.43	88,958.86			
Lettuce	4,697	184.96	18,495.90	100.00		
Head cabbage	9,639	336.45	39,700.86	118.00		
Ethiopian cabbage	3,646	20.77	270.05	13.00		
Tomatoes	9,607	142.32	11,854.91	83.30		
Green peppers	22,939	345.63	18,076.67	52.30		
Red peppers	10,773	75.74	560.47	7.40		
Swiss chard	536	3.56	*	*		
<u>Root crops</u>	235,552	14,161.09	1,150,630.99			
Beetroot	6,709	326.51	42,119.87	129.00		
Carrot	1,711	106.71	13,008.33	121.90		
Onion	39,863	1,105.51	106,460.78	96.30		
Potatoes	60,817	3,806.47	399,679.41	105.00		
Garlic	28,576	831.27	123,859.93	149.00		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	165,044	7,984.61	465,502.66	58.30		
<u>Fruit crops</u>	92,002	700.96	72,271.29			
Avocados	3,901	12.72	*	*		
Bananas	37,332	197.87	13,573.63	68.60		
Guavas	26,822	86.37	1,839.78	21.30		
Lemons	4,096	19.67	1,128.88	57.39		
Mangoes	31,638	286.71	33,029.48	115.20		
Oranges	1,813	3.65	768.17	210.46		
Papayas	12,111	93.96	21,931.35	233.41		
Pineapples	*	*	*	*		
Chat	358,496	42,666.81	396,801.29	9.30		
Coffee	74,027	2,783.71	19,207.65	6.90		
Hops	4,310	40.51	*	*		
Sugar cane	6,389	71.21	94,962.95	1,333.56		

Table 7.11 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Bale						
Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	302,579	388,385.49	5,297,378.01			
<u>Cereals</u>	294,632	311,877.80	4,717,701.94			
Teff	46,953	18,658.33	119,650.11	6.41	5.64	8.51
Barley	198,314	131,014.68	1,986,947.70	15.17	15.78	20.19
Wheat	165,639	123,035.28	1,985,516.27	16.14	13.95	18.07
Maize	134,061	24,058.04	457,609.80	19.02	18.31	22.09
Sorghum	1,022	145.71	227.58	1.56	*	-
Finger millet	719	4.01	*	*	*	-
Oats / 'Aja'	56,069	14,961.75	167,750.46	11.21		
Rice	*	*	*	*		
<u>Pulses</u>	99,333	29,671.39	265,051.30			
Faba beans	64,282	10,083.60	112,577.25	11.16		
Field peas	36,144	12,092.80	78,448.94	6.49		
Haricot beans	3,099	125.38	526.94	4.20		
Chick-peas	2,551	252.34	327.64	1.30		
Lentils	14,943	741.44	3,736.89	5.04		
Grass peas	13,297	6,198.24	68,065.95	10.98		
Soya beans	*	*	*	*		
Fenugreek	6,687	177.58	1,367.68	7.70		
Gibto	*	*	*	*		
<u>Oilseeds</u>	89,847	46,836.29	314,624.77			
Neug	2,350	623.85	1,365.17	2.19		
Linseed	86,251	46,188.24	313,206.49	6.78		
Groundnuts	7	0.02	*	*		
Safflower	719	12.95	53.12	4.10		
Sesame	3	0.43	*	*		
Rape seed	1,438	10.79	*	*		
<u>Vegetables</u>	111,298	10,248.96	137,945.02			
Lettuce	*	*	*	*		
Head cabbage	4,683	131.46	8,268.51	62.90		
Ethiopian cabbage	74,344	599.29	42,909.36	71.60		
Tomatoes	116	0.55	43.30	78.73		
Green peppers	4,310	73.83	4,562.50	61.80		
Red peppers	31,020	9,443.83	82,161.35	8.70		
Swiss chard	*	*	*	*		
<u>Root crops</u>	84,513	4,358.83	283,941.03			
Beetroot	7,615	33.81	2,451.24	72.50		
Carrot	3,348	9.54	678.22	71.09		
Onion	26,906	412.97	28,907.88	70.00		
Potatoes	47,201	3,060.48	186,995.36	61.10		
Garlic	25,872	769.79	60,813.57	79.00		
Taro / 'Godere'	806	2.13	288.02	135.22		
Sweet potatoes	674	70.11	3,806.74	54.30		
<u>Fruit crops</u>	9,019	312.06	100,330.57			
Avocados	*	*	*	*		
Bananas	1,686	22.30	2,312.71	103.71		
Guavas	719	0.46	11.75	25.54		
Lemons	*	*	*	*		
Mangoes	3	0.05	2.08	41.60		
Oranges	3,228	106.72	34,886.38	326.90		
Papayas	5,894	182.53	63,117.66	345.79		
Pineapples	*	*	*	*		
Chat	13,576	2,830.11	21,508.85	7.60		
Coffee	14,234	3,097.65	20,754.25	6.70		
Hops	5,764	34.62	321.99	9.30		
Sugar cane	1,570	16.79	10,651.62	634.40		

Table 7.12 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Borena

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	108,630	33,138.24	280,280.42			
<u>Cereals</u>	87,279	23,427.98	243,137.15			
Teff	18,721	4,185.86	14,059.55	3.36	3.39	7.80
Barley	29,192	4,203.28	9,616.66	2.29	2.29	-
Wheat	7,665	700.93	4,560.81	6.51	6.51	-
Maize	75,453	13,426.78	212,519.94	15.83	13.11	27.62
Sorghum	4,075	911.14	2,380.18	2.61	2.61	-
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	*	*	*	*	*	-
Rice	*	*	*	*	*	-
<u>Pulses</u>	66,913	9,575.20	37,077.94			
Faba beans	7,105	281.82	2,326.34	8.25		
Field peas	2,749	125.79	121.82	0.97		
Haricot beans	60,781	9,087.88	34,184.04	3.76		
Chick-peas	1,254	65.16	355.64	5.46		
Lentils	337	6.97	*	*		
Grass peas	*	*	*	*		
Soya beans	362	7.57	90.10	11.90		
Fenugreek	*	*	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	2,253	135.05	65.34			
Neug	*	*	*	*		
Linseed	1,134	102.84	17.44	0.17		
Groundnuts	*	*	*	*		
Safflower	355	2.61	*	*		
Sesame	*	*	*	*		
Rape seed	765	29.60	47.89	1.62		
<u>Vegetables</u>	48,763	701.19	69,114.28			
Lettuce	*	*	*	*		
Head cabbage	*	*	*	*		
Ethiopian cabbage	45,765	625.51	62,550.69	100.00		
Tomatoes	1,513	2.64	47.45	17.97		
Green peppers	8,459	72.59	6,511.11	89.70		
Red peppers	199	0.46	5.03	10.93		
Swiss chard	*	*	*	*		
<u>Root crops</u>	25,643	845.71	82,100.64			
Beetroot	1,805	4.11	*	*		
Carrot	*	*	*	*		
Onion	170	0.03	3.52	117.33		
Potatoes	2,092	101.99	9,648.42	94.60		
Garlic	1,586	7.06	1,058.84	149.98		
Taro / 'Godere'	4,078	22.06	1,764.99	80.01		
Sweet potatoes	18,815	710.46	69,624.87	98.00		
<u>Fruit crops</u>	35,426	946.95	49,169.99			
Avocados	12,302	100.20	9,167.92	91.50		
Bananas	26,320	725.22	32,272.50	44.50		
Guavas	1,748	6.93	49.91	7.20		
Lemons	*	*	*	*		
Mangoes	1,190	50.45	*	*		
Oranges	1,484	41.73	4,932.00	118.19		
Papayas	3,940	18.20	2,747.66	150.97		
Pineapples	391	4.23	*	*		
Chat	13,493	1,233.39	10,113.77	8.20		
Coffee	60,114	10,552.71	102,361.30	9.70		
Hops	5,328	29.02	348.26	12.00		
Sugar cane	14,343	633.97	718,222.23	1,132.90		

Table 7.13 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

South West Shewa

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	215,339	281,993.31	3,866,083.17			
<u>Cereals</u>	209,918	217,771.98	3,120,553.27			
Teff	160,628	125,651.92	1,497,527.87	11.92	11.68	12.93
Barley	45,403	9,104.11	128,270.23	14.09	14.06	17.80
Wheat	135,439	53,833.76	910,461.11	16.91	15.23	20.53
Maize	120,724	21,823.89	478,537.47	21.93	19.50	29.35
Sorghum	41,117	7,189.16	104,918.70	14.59	14.60	-
Finger millet	455	45.18	*	*	*	-
Oats / 'Aja'	3,407	123.96	837.89	6.76		
Rice	*	*	*	*		
<u>Pulses</u>	139,746	53,646.52	682,991.69			
Faba beans	65,104	7,699.26	104,410.47	13.56		
Field peas	18,700	3,272.11	40,100.20	12.26		
Haricot beans	17,658	1,851.81	6,535.29	3.53		
Chick-peas	67,963	25,607.24	327,960.23	12.81		
Lentils	25,438	3,551.07	30,296.92	8.53		
Grass peas	51,537	11,486.21	172,879.26	15.05		
Soya beans	*	*	*	*		
Fenugreek	6,088	178.83	809.31	4.53		
Gibto	*	*	*	*		
<u>Oilseeds</u>	40,484	10,574.81	62,538.21			
Neug	20,191	6,567.50	37,307.06	5.68		
Linseed	16,579	3,784.16	23,594.06	6.23		
Groundnuts	*	*	*	*		
Safflower	652	10.70	*	*		
Sesame	301	5.73	22.94	4.00		
Rape seed	7,099	206.71	1,614.16	7.81		
<u>Vegetables</u>	93,920	4,667.38	66,631.15			
Lettuce	1,085	2.60	*	*		
Head cabbage	7,346	41.68	1,375.36	33.00		
Ethiopian cabbage	65,792	363.18	65,008.43	179.00		
Tomatoes	3,129	27.48	247.37	9.00		
Green peppers	39,306	178.18	*	*		
Red peppers	8,033	4,047.29	*	*		
Swiss chard	2,063	6.97	*	*		
<u>Root crops</u>	62,499	1,354.51	15,659.74			
Beetroot	10,496	18.29	2,285.76	124.97		
Carrot	3,018	6.76	737.33	109.07		
Onion	10,358	311.85	3,742.16	12.00		
Potatoes	8,900	117.64	1,941.05	16.50		
Garlic	37,240	173.40	6,953.43	40.10		
Taro / 'Godere'	1,813	2.11	*	*		
Sweet potatoes	7,858	724.46	*	*		
<u>Fruit crops</u>	25,501	678.97	20,639.91			
Avocados	4,827	56.86	*	*		
Bananas	17,530	327.08	16,059.68	49.10		
Guavas	3,698	21.07	*	*		
Lemons	1,815	5.43	435.29	80.16		
Mangoes	3,883	187.21	*	*		
Oranges	3,422	58.43	*	*		
Papayas	6,472	22.89	4,144.93	181.08		
Pineapples	*	*	*	*		
Chat	33,314	1,860.53	23,070.63	12.40		
Coffee	23,041	3,227.10	22,589.69	7.00		
Hops	37,778	470.20	6,159.55	13.10		
Sugar cane	13,068	164.30	72,618.51	441.99		

Table 7.14 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Guji

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	166,938	83,788.78	950,135.76			
<u>Cereals</u>	159,844	74,752.54	884,498.94			
Teff	41,297	14,131.14	96,077.78	6.80	6.79	-
Barley	82,682	26,348.73	276,759.22	10.50	10.48	16.90
Wheat	43,302	13,615.16	135,476.74	9.95	9.27	13.63
Maize	101,137	20,626.69	376,185.10	18.24	15.49	34.74
Sorghum	1,602	30.82	0.09	*	*	-
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	*	*	*	*	*	-
Rice	*	*	*	*	*	-
<u>Pulses</u>	66,484	9,001.44	65,563.38			
Faba beans	38,676	3,039.41	24,868.87	8.18		
Field peas	25,396	4,543.52	31,487.22	6.93		
Haricot beans	20,988	1,314.18	8,598.17	6.54		
Chick-peas	1,396	101.02	606.04	6.00		
Lentils	2	0.06	*	*		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	310	3.25	3.08	0.95		
Gibto	*	*	*	*		
<u>Oilseeds</u>	1,655	34.80	73.44			
Neug	*	*	*	*		
Linseed	859	26.79	21.06	0.79		
Groundnuts	*	*	*	*		
Safflower	*	*	*	*		
Sesame	*	*	*	*		
Rape seed	795	8.01	52.38	6.54		
<u>Vegetables</u>	100,160	1,704.09	15.68			
Lettuce	242	0.85	*	*		
Head cabbage	1,210	8.47	*	*		
Ethiopian cabbage	98,357	1,582.12	*	*		
Tomatoes	576	1.96	15.68	8.00		
Green peppers	6,585	107.21	*	*		
Red peppers	624	3.48	*	*		
Swiss chard	*	*	*	*		
<u>Root crops</u>	19,657	521.69	16,947.48			
Beetroot	1,459	6.09	*	*		
Carrot	636	1.60	*	*		
Onion	1,189	42.38	*	*		
Potatoes	5,293	192.59	16,947.48	88.00		
Garlic	1,144	4.78	*	*		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	12,480	274.25	*	*		
<u>Fruit crops</u>	29,998	973.36	94,043.57			
Avocados	7,577	124.01	11,582.23	93.40		
Bananas	23,840	803.12	78,786.13	98.10		
Guavas	2,378	33.78	641.83	19.00		
Lemons	542	2.17	60.14	27.71		
Mangoes	*	*	*	*		
Oranges	605	0.76	*	*		
Papayas	1,942	9.51	2,973.23	312.64		
Pineapples	*	*	*	*		
Chat	4,562	206.19	1,587.68	7.70		
Coffee	53,296	10,517.21	77,827.34	7.40		
Hops	2,323	59.93	593.33	9.90		
Sugar cane	14,991	642.87	438,371.46	681.90		

Table 8 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Somali Region

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	81,247	67,289.50	378,094.17			
<u>Cereals</u>	81,108	65,914.66	376,438.90			
Teff	179	8.78	*	*	*	-
Barley	11,134	2,531.83	11,240.23	4.44	4.44	-
Wheat	24,461	9,671.83	47,166.14	4.88	4.88	-
Maize	64,055	22,965.34	137,198.92	5.97	5.98	-
Sorghum	58,955	30,475.03	180,018.72	5.91	5.97	25.00
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	2,628	258.29	802.11	3.11		
Rice	609	3.55	12.80	3.61		
<u>Pulses</u>	7,875	1,173.40	1,466.95			
Faba beans	*	*	*	*		
Field peas	544	7.79	9.74	1.25		
Haricot beans	4,684	650.79	327.97	0.50		
Chick-peas	1,841	456.19	1,017.96	2.23		
Lentils	208	9.89	24.73	2.50		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	925	48.73	86.55	1.78		
Gibto	*	*	*	*		
<u>Oilseeds</u>	3,669	201.44	188.32			
Neug	*	*	*	*		
Linseed	3,567	195.02	186.18	0.95		
Groundnuts	13	0.15	*	*		
Safflower	*	*	*	*		
Sesame	89	6.27	2.14	0.34		
Rape seed	*	*	*	*		
<u>Vegetables</u>	2,954	68.68	731.10			
Lettuce	*	*	*	*		
Head cabbage	544	13.80	*	*		
Ethiopian cabbage	136	2.07	*	*		
Tomatoes	2,107	40.44	479.41	11.85		
Green peppers	844	12.37	251.68	20.35		
Red peppers	*	*	*	*		
Swiss chard	*	*	*	*		
<u>Root crops</u>	5,532	296.54	15,781.73			
Beetroot	*	*	*	*		
Carrot	*	*	*	*		
Onion	1,962	72.15	6,718.49	93.12		
Potatoes	1,527	36.29	*	*		
Garlic	771	42.94	6,805.20	158.48		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	2,793	145.17	2,258.04	15.55		
<u>Fruit crops</u>	3,744	355.96	8,204.03			
Avocados	*	*	*	*		
Bananas	1,015	65.55	*	*		
Guavas	707	13.08	5.92	0.45		
Lemons	1,565	92.35	1,058.98	11.47		
Mangoes	2,110	73.32	6,962.78	94.96		
Oranges	1,250	110.48	*	*		
Papayas	549	1.18	176.34	149.44		
Pineapples	*	*	*	*		
Chat	23,328	6,916.72	17,219.98	2.49		
Coffee	2,623	97.11	*	*		
Hops	*	*	*	*		
Sugar cane	65	1.86	*	*		

Table 8.1 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Shinele

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	3,056	892.13	7,532.03			
<u>Cereals</u>	3,056	891.39	7,529.62			
Teff	*	*	*	*	*	-
Barley	*	*	*	*	*	-
Wheat	*	*	*	*	*	-
Maize	912	67.83	793.62	11.70	11.69	-
Sorghum	2,818	823.55	6,736.00	8.18	8.18	-
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	*	*	*	*	*	-
Rice	*	*	*	*	*	-
<u>Pulses</u>	31	0.07	0.27			
Faba beans	*	*	*	*	*	
Field peas	11	*	*	*	*	
Haricot beans	20	0.07	0.27	3.86	*	
Chick-peas	*	*	*	*	*	
Lentils	*	*	*	*	*	
Grass peas	*	*	*	*	*	
Soya beans	*	*	*	*	*	
Fenugreek	*	*	*	*	*	
Gibto	*	*	*	*	*	
<u>Oilseeds</u>	60	0.68	2.14			
Neug	*	*	*	*	*	
Linseed	*	*	*	*	*	
Groundnuts	13	0.15	*	*	*	
Safflower	*	*	*	*	*	
Sesame	48	0.53	2.14	4.04	*	
Rape seed	*	*	*	*	*	
<u>Vegetables</u>	273	9.20	729.52			
Lettuce	*	*	*	*	*	
Head cabbage	*	*	*	*	*	
Ethiopian cabbage	*	*	*	*	*	
Tomatoes	225	5.76	477.84	82.96	*	
Green peppers	103	3.45	251.68	72.95	*	
Red peppers	*	*	*	*	*	
Swiss chard	*	*	*	*	*	
<u>Root crops</u>	646	40.70	2,649.62			
Beetroot	*	*	*	*	*	
Carrot	*	*	*	*	*	
Onion	88	4.08	391.58	95.98	*	
Potatoes	*	*	*	*	*	
Garlic	22	0.08	*	*	*	
Taro / 'Godere'	*	*	*	*	*	
Sweet potatoes	570	36.54	2,258.04	61.80	*	
<u>Fruit crops</u>	1,825	275.34	4,457.03			
Avocados	*	*	*	*	*	
Bananas	667	41.61	*	*	*	
Guavas	217	1.42	*	*	*	
Lemons	1,535	91.94	983.79	10.70	*	
Mangoes	909	29.51	3,473.24	117.70	*	
Oranges	1,250	110.48	*	*	*	
Papayas	148	0.38	*	*	*	
Pineapples	*	*	*	*	*	
Chat	1,039	129.14	929.79	7.20	*	
Coffee	320	10.42	*	*	*	
Hops	*	*	*	*	*	
Sugar cane	65	1.86	*	*	*	

Table 8.2 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Jijiga

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	71,500	62,808.60	370,400.57			
<u>Cereals</u>	71,500	62,035.50	368,747.71			
Teff	136	8.78	*	*	*	-
Barley	11,134	2,531.83	11,240.23	4.44	4.44	-
Wheat	24,375	9,616.53	47,166.14	4.90	4.90	-
Maize	56,662	20,011.91	136,405.30	6.82	6.82	-
Sorghum	55,865	29,604.61	173,121.14	5.85	5.91	25.00
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	2,628	258.29	802.11	3.11		
Rice	609	3.55	12.80	3.61		
<u>Pulses</u>	4,842	578.08	1,466.68			
Faba beans	*	*	*	*		
Field peas	533	7.79	9.74	1.25		
Haricot beans	1,662	55.47	327.70	5.91		
Chick-peas	1,841	456.19	1,017.96	2.23		
Lentils	208	9.89	24.73	2.50		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	925	48.73	86.55	1.78		
Gibto	*	*	*	*		
<u>Oilseeds</u>	3,567	195.02	186.18			
Neug	*	*	*	*		
Linseed	3,567	195.02	186.18	0.95		
Groundnuts	*	*	*	*		
Safflower	*	*	*	*		
Sesame	*	*	*	*		
Rape seed	*	*	*	*		
<u>Vegetables</u>	2,651	58.74	*	*		
Lettuce	*	*	*	*		
Head cabbage	544	13.80	*	*		
Ethiopian cabbage	136	2.07	*	*		
Tomatoes	1,852	34.22	*	*		
Green peppers	712	8.65	*	*		
Red peppers	*	*	*	*		
Swiss chard	*	*	*	*		
<u>Root crops</u>	4,838	253.57	13,121.89			
Beetroot	*	*	*	*		
Carrot	*	*	*	*		
Onion	1,826	65.80	6,316.70	96.00		
Potatoes	1,527	36.29	*	*		
Garlic	749	42.85	6,805.20	158.81		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	2,223	108.63	*	*		
<u>Fruit crops</u>	744	26.51	*	*		
Avocados	*	*	*	*		
Bananas	177	0.83	*	*		
Guavas	455	11.44	*	*		
Lemons	*	*	*	*		
Mangoes	567	14.24	*	*		
Oranges	*	*	*	*		
Papayas	*	*	*	*		
Pineapples	*	*	*	*		
Chat	22,289	6,787.58	16,290.19	2.40		
Coffee	2,303	86.69	*	*		
Hops	*	*	*	*		
Sugar cane	*	*	*	*		

Table 8.3 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Liben						
Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	6,691	3,588.76	161.57			
<u>Cereals</u>	6,552	2,987.77	161.57			
Teff	43	*	*	*	*	-
Barley	*	*	*	*	*	-
Wheat	85	55.31	*	*	*	-
Maize	6,482	2,885.60	*	*	*	-
Sorghum	273	46.87	161.57	3.45	3.63	-
Finger millet	*	*	*	*	*	-
Oats / 'Aja'	*	*	*	*	*	-
Rice	*	*	*	*	*	-
<u>Pulses</u>	3,001	595.25	*			
Faba beans	*	*	*	*	*	
Field peas	*	*	*	*	*	
Haricot beans	3,001	595.25	*	*	*	
Chick-peas	*	*	*	*	*	
Lentils	*	*	*	*	*	
Grass peas	*	*	*	*	*	
Soya beans	*	*	*	*	*	
Fenugreek	*	*	*	*	*	
Gibto	*	*	*	*	*	
<u>Oilseeds</u>	41	5.74	*			
Neug	*	*	*	*	*	
Linseed	*	*	*	*	*	
Groundnuts	*	*	*	*	*	
Safflower	*	*	*	*	*	
Sesame	41	5.74	*	*	*	
Rape seed	*	*	*	*	*	
<u>Vegetables</u>	30	0.74	1.58			
Lettuce	*	*	*	*	*	
Head cabbage	*	*	*	*	*	
Ethiopian cabbage	*	*	*	*	*	
Tomatoes	30	0.46	1.58	3.43	*	
Green peppers	30	0.27	*	*	*	
Red peppers	*	*	*	*	*	
Swiss chard	*	*	*	*	*	
<u>Root crops</u>	48	2.27	10.21			
Beetroot	*	*	*	*	*	
Carrot	*	*	*	*	*	
Onion	48	2.27	10.21	4.50	*	
Potatoes	*	*	*	*	*	
Garlic	*	*	*	*	*	
Taro / 'Godere'	*	*	*	*	*	
Sweet potatoes	*	*	*	*	*	
<u>Fruit crops</u>	1,175	54.11	3,747.00	69.25		
Avocados	*	*	*	*	*	
Bananas	170	23.11	*	*	*	
Guavas	34	0.22	5.92	26.91	*	
Lemons	30	0.41	75.19	183.39	*	
Mangoes	635	29.57	3,489.54	118.01	*	
Oranges	*	*	*	*	*	
Papayas	400	0.80	176.34	220.43	*	
Pineapples	*	*	*	*	*	
Chat	*	*	*	*	*	
Coffee	*	*	*	*	*	
Hops	*	*	*	*	*	
Sugar cane	*	*	*	*	*	

Table 9.1 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Metekel

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	50,744	79,410.17	1,031,073.33			
<u>Cereals</u>	50,344	58,058.59	840,944.35			
Teff	13,805	11,267.50	106,981.10	9.49	9.24	10.26
Barley	4,929	1,107.22	11,528.14	10.41	11.20	14.10
Wheat	5,175	2,036.25	28,884.03	14.18	13.32	16.93
Maize	45,449	11,606.19	255,237.25	21.99	19.76	26.81
Sorghum	19,538	14,512.02	210,519.66	14.51	14.51	17.50
Finger millet	24,479	17,263.74	224,343.60	13.00	12.99	15.10
Oats / 'Aja'	339	23.31	293.02	12.57		
Rice	1,037	242.35	3,157.56	13.03		
<u>Pulses</u>	17,297	3,060.80	27,077.23			
Faba beans	6,372	608.16	6,693.42	11.01		
Field peas	4,681	925.17	5,832.17	6.30		
Haricot beans	7,823	1,151.16	11,976.14	10.40		
Chick-peas	1,249	267.86	2,086.43	7.79		
Lentils	888	38.69	237.52	6.14		
Grass peas	*	*	*	*		
Soya beans	198	67.37	249.28	3.70		
Fenugreek	395	1.19	*	*		
Gibto	113	1.20	2.27	1.89		
<u>Oilseeds</u>	33,020	18,290.78	163,051.75			
Neug	10,416	6,189.16	53,203.38	8.60		
Linseed	1,748	170.67	758.84	4.45		
Groundnuts	12,662	3,360.34	53,614.74	15.96		
Safflower	861	108.35	242.38	2.24		
Sesame	20,096	8,377.51	54,674.38	6.53		
Rape seed	3,136	84.75	558.04	6.58		
<u>Vegetables</u>	18,132	332.74	*			
Lettuce	*	*	*	*		
Head cabbage	*	*	*	*		
Ethiopian cabbage	2,523	54.29	*	*		
Tomatoes	742	1.34	*	*		
Green peppers	2,218	17.44	*	*		
Red peppers	15,005	259.66	*	*		
Swiss chard	*	*	*	*		
<u>Root crops</u>	12,104	299.85	33,984.76			
Beetroot	114	0.15	*	*		
Carrot	*	*	*	*		
Onion	2,535	14.57	1,952.48	134.01		
Potatoes	3,029	192.55	20,217.66	105.00		
Garlic	9,318	79.29	11,814.62	149.01		
Taro / 'Godere'	*	*	*	*		
Sweet potatoes	1,689	13.29	*	*		
<u>Fruit crops</u>	7,349	94.27	*			
Avocados	340	1.51	*	*		
Bananas	2,909	20.45	*	*		
Guavas	495	5.09	*	*		
Lemons	1,425	2.98	*	*		
Mangoes	4,028	50.70	*	*		
Oranges	1,773	3.79	*	*		
Papayas	2,255	9.76	*	*		
Pineapples	*	*	*	*		
Chat	1,400	6.39	*	*		
Coffee	4,191	817.00	*	*		
Hops	6,821	97.91	793.08	8.10		
Sugar cane	555	8.62	*	*		

Table 9.2 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Asosa						
Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	66,322	57,610.83	554,412.29			
<u>Cereals</u>	65,670	40,804.64	480,070.81			
Teff	12,907	3,013.19	9,691.27	3.22	3.22	-
Barley	*	*	*	*	*	-
Wheat	217	11.40	52.16	4.58	4.50	-
Maize	59,001	11,530.55	185,190.25	16.06	16.22	17.38
Sorghum	56,852	24,861.52	275,070.18	11.06	11.06	-
Finger millet	9,488	1,383.46	10,066.94	7.28	7.20	-
Oats / 'Aja'	111	4.53	*	*		
Rice	*	*	*	*		
<u>Pulses</u>	27,239	2,722.30	17,029.89			
Faba beans	190	3.18	*	*		
Field peas	106	1.49	*	*		
Haricot beans	20,331	1,945.31	13,715.04	7.05		
Chick-peas	2,744	216.82	678.06	3.13		
Lentils	*	*	*	*		
Grass peas	*	*	*	*		
Soya beans	5,625	555.19	2,636.78	4.75		
Fenugreek	109	0.30	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	47,201	14,083.89	57,311.60			
Neug	21,928	6,632.97	18,897.69	2.85		
Linseed	3,688	111.33	218.74	1.96		
Groundnuts	13,347	797.99	5,177.78	6.49		
Safflower	1,070	28.97	71.21	2.46		
Sesame	29,564	6,470.59	32,939.75	5.09		
Rape seed	197	42.05	6.43	0.15		
<u>Vegetables</u>	16,586	616.22	23,464.27			
Lettuce	*	*	*	*		
Head cabbage	1,445	10.40	1,249.60	120.15		
Ethiopian cabbage	1,096	12.81	550.71	42.99		
Tomatoes	855	10.23	*	*		
Green peppers	412	3.35	519.89	155.19		
Red peppers	14,601	579.29	21,144.07	36.50		
Swiss chard	106	0.15	*	*		
<u>Root crops</u>	16,264	348.89	40,093.17			
Beetroot	572	0.70	103.57	147.96		
Carrot	627	3.26	441.49	135.43		
Onion	3,374	73.40	11,303.32	154.00		
Potatoes	*	*	*	*		
Garlic	852	2.67	265.47	99.43		
Taro / 'Godere'	252	10.04	*	*		
Sweet potatoes	13,806	258.83	27,979.32	108.10		
<u>Fruit crops</u>	31,513	652.61	65,409.13	100.23		
Avocados	286	5.34	*	*		
Bananas	11,496	267.26	13,256.18	49.60		
Guavas	1,943	16.19	416.18	25.71		
Lemons	2,827	9.31	551.28	59.21		
Mangoes	23,137	319.05	40,072.37	125.60		
Oranges	3,185	19.32	4,836.56	250.34		
Papayas	5,054	16.14	6,276.57	388.88		
Pineapples	*	*	*	*		
Chat	5,652	163.86	1,917.16	11.70		
Coffee	9,718	166.66	749.99	4.50		
Hops	2,946	15.65	151.81	9.70		
Sugar cane	259	3.20	3,075.08	960.96		

Table 9.3 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Kemashi

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	22,020	34,855.48	500,316.27			
<u>Cereals</u>	21,616	25,319.14	449,190.41			
Teff	3,171	2,373.63	16,836.79	7.09	7.09	-
Barley	40	0.57	*	*	*	-
Wheat	*	*	*	*	*	-
Maize	19,745	8,584.02	186,200.68	21.69	21.13	25.13
Sorghum	16,642	13,513.45	237,567.05	17.58	17.58	-
Finger millet	2,706	838.25	8,505.59	10.15	10.15	-
Oats / 'Aja'	194	9.23	80.30	8.70		
Rice	*	*	*	*		
<u>Pulses</u>	6,278	812.59	6,238.12			
Faba beans	*	*	*	*		
Field peas	*	*	*	*		
Haricot beans	6,278	810.71	6,222.51	7.68		
Chick-peas	*	*	*	*		
Lentils	*	*	*	*		
Grass peas	*	*	*	*		
Soya beans	49	1.88	15.61	8.30		
Fenugreek	*	*	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	17,515	8,723.74	44,887.74			
Neug	1,818	253.54	932.01	3.68		
Linseed	222	4.01	*	*		
Groundnuts	1,348	28.00	185.88	6.64		
Safflower	*	*	*	*		
Sesame	16,787	8,432.39	43,697.91	5.18		
Rape seed	337	5.80	71.94	12.40		
<u>Vegetables</u>	3,814	53.24	511.69			
Lettuce	*	*	*	*		
Head cabbage	71	0.09	*	*		
Ethiopian cabbage	72	1.86	*	*		
Tomatoes	88	5.84	*	*		
Green peppers	973	8.24	511.69	62.10		
Red peppers	2,780	37.21	*	*		
Swiss chard	*	*	*	*		
<u>Root crops</u>	3,853	49.56	4,655.93			
Beetroot	98	0.58	*	*		
Carrot	90	0.02	*	*		
Onion	50	0.02	*	*		
Potatoes	*	*	*	*		
Garlic	308	0.73	44.37	60.78		
Taro / 'Godere'	51	1.08	86.76	80.33		
Sweet potatoes	3,598	47.13	4,524.80	96.01		
<u>Fruit crops</u>	3,432	175.76	20,047.40	114.06		
Avocados	50	0.10	*	*		
Bananas	1,737	26.21	2,170.60	82.82		
Guavas	*	*	*	*		
Lemons	169	0.70	76.59	109.41		
Mangoes	2,105	146.90	17,525.37	119.30		
Oranges	67	1.17	*	*		
Papayas	207	0.66	274.85	416.44		
Pineapples	*	*	*	*		
Chat	101	4.28	*	*		
Coffee	383	7.76	58.17	7.50		
Hops	*	*	*	*		
Sugar cane	133	0.93	*	*		

Table 10.1 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Gurage						
Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	216,847	87,600.96	1,188,169.33			
<u>Cereals</u>	210,636	74,419.28	1,061,938.98			
Teff	67,549	27,670.33	214,299.43	7.74	8.02	11.27
Barley	103,558	13,158.62	220,023.64	16.72	16.69	18.35
Wheat	104,197	12,533.00	218,927.72	17.47	16.63	20.07
Maize	85,996	15,446.75	343,842.08	22.26	21.04	27.34
Sorghum	38,872	5,500.43	63,684.59	11.58	11.49	17.15
Finger millet	373	1.54	*	*	*	-
Oats / 'Aja'	8,392	108.61	1,161.52	10.69		
Rice	*	*	*	*		
<u>Pulses</u>	113,415	10,390.17	115,145.27			
Faba beans	84,999	3,858.52	47,047.16	12.19		
Field peas	25,137	3,039.62	42,873.02	14.10		
Haricot beans	24,689	763.99	5,985.56	7.83		
Chick-peas	10,360	1,461.98	11,183.54	7.65		
Lentils	1,758	112.42	132.83	1.18		
Grass peas	4,006	1,137.17	7,923.17	6.97		
Soya beans	4	0.01	*	*		
Fenugreek	1,883	16.46	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	20,282	2,791.51	11,085.08			
Neug	11,554	2,707.09	10,903.26	4.03		
Linseed	2,772	56.54	172.35	3.05		
Groundnuts	687	10.01	*	*		
Safflower	369	0.44	*	*		
Sesame	*	*	*	*		
Rape seed	5,273	17.44	9.47	0.54		
<u>Vegetables</u>	174,812	3,673.36	235,146.90			
Lettuce	3,518	2.30	*	*		
Head cabbage	18,108	43.95	2,373.20	54.00		
Ethiopian cabbage	160,515	1,215.08	66,343.34	54.60		
Tomatoes	1,972	14.88	*	*		
Green peppers	16,076	29.88	528.80	17.70		
Red peppers	24,520	2,359.91	165,901.56	70.30		
Swiss chard	7,590	7.38	*	*		
<u>Root crops</u>	119,248	2,410.75	203,656.12			
Beetroot	18,999	17.88	1,087.12	60.80		
Carrot	18,354	43.82	5,258.46	120.00		
Onion	14,952	18.12	110.50	6.10		
Potatoes	65,464	1,316.74	142,207.78	108.00		
Garlic	12,324	26.43	*	*		
Taro / 'Godere'	40,937	916.54	54,992.26	60.00		
Sweet potatoes	8,848	71.23	*	*		
<u>Fruit crops</u>	85,868	1,115.26	166,030.58			
Avocados	28,480	79.61	6,392.39	80.30		
Bananas	49,261	379.16	15,735.26	41.50		
Guavas	4,808	17.48	422.94	24.20		
Lemons	8,627	31.01	536.50	17.30		
Mangoes	9,879	23.58	622.50	26.40		
Oranges	41,095	506.79	113,267.52	223.50		
Papayas	28,312	77.50	29,053.46	374.88		
Pineapples	330	0.13	*	*		
Chat	101,110	4,471.30	35,770.45	8.00		
Coffee	94,912	2,900.33	4,640.54	1.60		
Hops	61,953	990.63	7,132.51	7.20		
Sugar cane	24,788	445.25	466,533.01	1,047.80		

Table 10.2 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Hadiya

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	194,756	111,807.27	1,567,711.84			
<u>Cereals</u>	189,028	98,827.82	1,440,614.84			
Teff	112,716	29,086.26	240,549.24	8.27	8.39	11.70
Barley	54,940	4,422.64	51,102.64	11.55	11.51	18.80
Wheat	114,047	35,958.82	663,197.00	18.44	17.37	24.99
Maize	112,192	20,713.95	375,474.92	18.13	17.47	20.96
Sorghum	78,512	8,070.78	106,923.68	13.25	13.26	20.80
Finger millet	8,961	531.49	3,126.52	5.88	5.95	-
Oats / 'Aja'	881	43.88	240.84	5.49		
Rice	*	*	*	*		
<u>Pulses</u>	94,617	11,050.72	114,191.05			
Faba beans	51,254	5,531.38	67,716.69	12.24		
Field peas	24,938	3,724.09	27,618.54	7.42		
Haricot beans	42,849	1,625.50	17,900.06	11.01		
Chick-peas	1,461	24.66	217.31	8.81		
Lentils	5,689	122.10	738.45	6.05		
Grass peas	*	*	*	*		
Soya beans	892	8.92	*	*		
Fenugreek	952	14.07	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	24,114	1,928.73	12,905.95			
Neug	295	0.14	*	*		
Linseed	15,399	1,502.24	10,918.59	7.27		
Groundnuts	*	*	*	*		
Safflower	*	*	*	*		
Sesame	297	6.00	33.62	5.60		
Rape seed	9,880	420.35	1,953.74	4.65		
<u>Vegetables</u>	170,991	3,745.52	244,129.17			
Lettuce	288	0.04	*	*		
Head cabbage	8,266	18.88	1,036.24	54.89		
Ethiopian cabbage	160,057	1,729.59	208,415.14	120.50		
Tomatoes	5,143	51.70	7,754.32	149.99		
Green peppers	17,870	83.96	6,465.13	77.00		
Red peppers	37,747	1,859.85	20,458.34	11.00		
Swiss chard	2,402	1.52	*	*		
<u>Root crops</u>	103,568	3,021.58	301,333.38			
Beetroot	24,582	47.60	6,140.82	129.01		
Carrot	2,543	1.94	234.38	120.81		
Onion	15,401	27.87	3,762.18	134.99		
Potatoes	38,058	806.98	23,402.41	29.00		
Garlic	3,582	15.51	2,280.61	147.04		
Taro / 'Godere'	24,207	338.09	27,047.60	80.00		
Sweet potatoes	37,102	1,783.59	238,465.38	133.70		
<u>Fruit crops</u>	119,334	1,854.92	159,468.06			
Avocados	60,347	279.24	21,278.43	76.20		
Bananas	97,998	1,432.33	124,899.56	87.20		
Guavas	4,624	8.53	*	*		
Lemons	2,574	23.53	*	*		
Mangoes	9,627	42.98	4,169.33	97.01		
Oranges	9,809	29.30	5,168.62	176.40		
Papayas	15,381	38.78	3,952.11	101.91		
Pineapples	265	0.21	*	*		
Chat	54,618	1,440.41	7,634.16	5.30		
Coffee	106,230	4,848.57	25,212.53	5.20		
Hops	28,855	119.47	1,469.44	12.30		
Sugar cane	70,017	1,450.86	1,975,202.15	1,361.40		

Table 10.3 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Kembata - Tembaro

Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	95,148	26,835.00	339,636.62			
<u>Cereals</u>	88,982	22,812.62	304,142.56			
Teff	43,850	7,101.51	50,504.31	7.11	6.73	14.78
Barley	18,824	1,280.20	15,565.83	12.16	12.10	15.45
Wheat	49,808	9,720.47	173,981.39	17.90	16.83	22.99
Maize	12,048	2,473.49	46,209.48	18.68	18.68	-
Sorghum	27,577	2,129.78	17,243.35	8.10	8.10	-
Finger millet	4,319	104.93	638.20	6.08	6.08	-
Oats / 'Aja'	173	2.23	*	*		
Rice	*	*	*	*		
<u>Pulses</u>	60,512	3,906.01	35,008.67			
Faba beans	43,478	2,370.83	22,825.12	9.63		
Field peas	17,674	769.24	5,310.82	6.90		
Haricot beans	24,784	746.39	6,847.39	9.17		
Chick-peas	869	19.49	25.34	1.30		
Lentils	*	*	*	*		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	159	0.06	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	2,704	116.36	485.40			
Neug	*	*	*	*		
Linseed	2,361	106.47	483.63	4.54		
Groundnuts	*	*	*	*		
Safflower	*	*	*	*		
Sesame	*	*	*	*		
Rape seed	694	9.90	1.77	0.18		
<u>Vegetables</u>	81,632	1,083.25	90,755.19			
Lettuce	167	0.05	*	*		
Head cabbage	9,372	141.27	7,755.50	54.90		
Ethiopian cabbage	79,635	871.28	73,187.51	84.00		
Tomatoes	3,575	45.28	6,746.13	148.99		
Green peppers	5,029	19.69	3,008.63	152.80		
Red peppers	3,372	3.83	57.43	14.99		
Swiss chard	1,198	1.86	*	*		
<u>Root crops</u>	92,243	5,243.37	470,936.45			
Beetroot	7,621	66.39	5,019.14	75.60		
Carrot	7,915	115.59	*	*		
Onion	9,858	184.48	24,720.95	134.00		
Potatoes	39,831	1,949.98	113,878.93	58.40		
Garlic	4,875	19.14	2,736.68	142.98		
Taro / 'Godere'	31,385	702.10	83,058.35	118.30		
Sweet potatoes	49,178	2,205.68	241,522.41	109.50		
<u>Fruit crops</u>	79,722	1,552.78	141,729.98			
Avocados	56,925	339.50	14,768.07	43.50		
Bananas	62,861	1,060.98	104,506.58	98.50		
Guavas	2,581	5.62	142.67	25.39		
Lemons	4,589	14.71	404.62	27.51		
Mangoes	15,158	61.35	7,073.70	115.30		
Oranges	9,049	39.76	1,550.79	39.00		
Papayas	9,020	30.86	13,283.56	430.45		
Pineapples	*	*	*	*		
Chat	15,033	455.65	3,690.74	8.10		
Coffee	70,477	2,948.18	8,254.92	2.80		
Hops	19,035	91.45	1,051.72	11.50		
Sugar cane	39,410	923.61	616,137.85	667.10		

Table 10.4 - Area, Production and Yield of Crops for Private Peasant Holdings
for Meher Season 2005/2006 (1998 E.C)

Sidama						
Crop	Number of holders	Area in hectare	Production in quintal	Average yield (qt / ha)	Non - extension yield (qt / ha)	Extension yield (qt / ha)
Grain	380,160	85,174.94	1,264,706.11			
<u>Cereals</u>	306,666	63,668.83	1,070,379.49			
Teff	40,014	4,999.32	30,731.76	6.15	4.83	9.35
Barley	87,844	12,936.21	125,703.42	9.72	9.76	11.05
Wheat	38,100	5,435.89	66,004.79	12.14	12.65	15.90
Maize	248,749	40,046.62	846,513.06	21.14	18.52	25.72
Sorghum	6,678	204.89	1,239.62	6.05	7.90	-
Finger millet	2,376	31.80	180.73	5.68	5.68	9.35
Oats / 'Aja'	1,350	12.52	6.12	0.49		
Rice	555	1.59	*	*		
<u>Pulses</u>	198,813	21,457.49	194,158.59			
Faba beans	81,311	4,523.88	43,282.88	9.57		
Field peas	31,594	3,170.66	18,743.51	5.91		
Haricot beans	109,548	13,737.63	132,076.51	9.61		
Chick-peas	*	*	*	*		
Lentils	532	9.60	55.69	5.80		
Grass peas	*	*	*	*		
Soya beans	*	*	*	*		
Fenugreek	1,145	15.73	*	*		
Gibto	*	*	*	*		
<u>Oilseeds</u>	6,215	48.62	168.02			
Neug	*	*	*	*		
Linseed	4,398	45.25	162.44	3.59		
Groundnuts	*	*	*	*		
Safflower	*	*	*	*		
Sesame	613	0.44	*	*		
Rape seed	1,205	2.94	5.58	1.90		
<u>Vegetables</u>	280,142	3,525.91	260,824.57			
Lettuce	1,163	5.61	*	*		
Head cabbage	2,590	8.16	*	*		
Ethiopian cabbage	261,346	2,814.07	236,382.08	84.00		
Tomatoes	1,807	10.27	1,530.87	149.06		
Green peppers	33,856	159.77	22,911.61	143.40		
Red peppers	21,519	525.82	*	*		
Swiss chard	571	2.19	*	*		
<u>Root crops</u>	125,737	3,874.61	349,017.92			
Beetroot	2,326	1.24	160.70	129.60		
Carrot	4,189	11.49	1,401.78	122.00		
Onion	3,845	31.25	4,218.25	134.98		
Potatoes	13,117	320.52	*	*		
Garlic	12,651	68.00	*	*		
Taro / 'Godere'	9,783	48.76	3,901.03	80.00		
Sweet potatoes	88,732	3,393.36	339,336.15	100.00		
<u>Fruit crops</u>	173,416	3,446.61	325,803.94			
Avocados	84,881	730.90	70,385.35	96.30		
Bananas	129,668	1,758.87	175,535.25	99.80		
Guavas	7,174	14.65	347.26	23.70		
Lemons	1,709	5.34	313.68	58.74		
Mangoes	4,036	36.20	4,739.18	130.92		
Oranges	10,888	24.59	4,500.48	183.02		
Papayas	5,016	16.98	8,300.81	488.86		
Pineapples	12,979	859.08	61,681.93	71.80		
Chat	226,502	13,077.30	124,234.44	9.50		
Coffee	296,045	27,944.45	162,077.83	5.80		
Hops	22,953	668.76	14,311.52	21.40		
Sugar cane	126,868	4,007.57	4,836,733.82	1,206.90		

APPENDIX I

ESTIMATION PROCEDURES OF TOTAL, RATIO AND SAMPLING ERRORS

APPENDIX I Estimation Procedures of Totals, Ratios and Sampling Errors

The following formulas were used to estimate total area of land under specific crop, production and yield of specific crop in a stratum.

1. For estimating Total Area of Land under Specific Crop:

$$\hat{A}_h = \sum_{i=1}^{n_h} W_{hi} \sum_{j=1}^{h_{hi}} a_{hij} = \sum_{i=1}^{n_h} W_{hi} a_{hi}$$

in which, $W_{hi} = \frac{M_h H_{hi}}{n_h m_{hi} h_{hi}}$ is the basic weight.

Where:

h represents the stratum

n_h is the total number of sample EAs successfully covered in the h^{th} stratum.

M_h is the measure of size of the h^{th} stratum as obtained from the sampling frame.

m_{hi} is the measure of size of the i^{th} sample EA in the h^{th} stratum obtained from the sampling frame.

H_{hi} is the total number of agricultural households of the i^{th} sample EA in the h^{th} stratum.

h_{hi} is the number of sample agricultural households successfully covered in the i^{th} sample EA in the h^{th} stratum.

a_{hij} is the value of area for agricultural households j , in the i^{th} EA in the h^{th} stratum under a specific crop.

a_{hi} is the sample total area under specific crop for EA i in stratum h

\hat{A}_h estimate of total area under specific crop in stratum h

2. For estimating Total Production under Specific Crop:

$$\hat{P}_h = \sum_{i=1}^{n_h} W_{hi} P_{hi}$$

in which, $P_{hi} = a_{hi} * \bar{Y}_{hi}$

Where, $\bar{Y}_{hi} = \frac{Y_{hi}}{16C_{hi}}$ is average yield per square meter of a specific crop in the i^{th} EA in the

h^{th} stratum.

\hat{P}_h is estimate of total quantity of production of a specific crop in the h^{th} stratum.

Y_{hi} is sample total quantity of production of a specific crop from defined area of land for crop cutting

of a crop in the i^{th} EA in the h^{th} stratum.

P_{hi} is estimate of total quantity of production under specific crop for EA i in stratum h .

C_{hi} is the number of crop cutting of a specific crop in the i^{th} EA in the h^{th} stratum.

3. For estimating yield of a specific crop in stratum h :

$$\hat{Y}_h = \frac{\hat{P}_h}{\hat{A}_h}$$

4. Sampling Variance of Estimates:

Sampling variance for the estimate of stratum total of area, production and yield for a specific crop are estimated by the following formulas.

$$Var(\hat{A}_h) = (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{A}_{hi} - \frac{\hat{A}_h}{n_h} \right)^2 + f_h \sum_{i=1}^{n_h} (1 - f_{hi}) \left(\frac{h_{hi}}{h_{hi} - 1} \right) \sum_{j=1}^{h_{hi}} \left(\hat{A}_{hij} - \frac{\hat{A}_{hi}}{h_{hi}} \right)^2$$

$$Var(\hat{P}_h) = (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{P}_{hi} - \frac{\hat{P}_h}{n_h} \right)^2 + f_h \sum_{i=1}^{n_h} (1 - f_{hi}) \left(\frac{h_{hi}}{h_{hi} - 1} \right) \sum_{j=1}^{h_{hi}} \left(\hat{P}_{hij} - \frac{\hat{P}_{hi}}{h_{hi}} \right)^2$$

$$Var(\hat{Y}_h) = \frac{1}{\hat{A}_h^2} \left[Var(\hat{P}_h) + \hat{Y}_h^2 Var(\hat{A}_h) - 2\hat{Y}_h Cov(\hat{P}_h, \hat{A}_h) \right]$$

Where,

$$Cov(\hat{P}_h, \hat{A}_h) = (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} \left(\hat{A}_{hi} - \frac{\hat{A}_h}{n_h} \right) \left(\hat{P}_{hi} - \frac{\hat{P}_h}{n_h} \right) + f_h \sum_{i=1}^{n_h} (1 - f_{hi}) \left(\frac{h_{hi}}{h_{hi} - 1} \right) \sum_{j=1}^{h_{hi}} \left(\hat{A}_{hij} - \frac{\hat{A}_{hi}}{h_{hi}} \right) \left(\hat{P}_{hij} - \frac{\hat{P}_{hi}}{h_{hi}} \right)$$

f_h = average first stage probability of selection of EAs within stratum h .

$f_{hi} = \frac{h_{hi}}{H_{hi}}$ = average second stage probability of selection within the i^{th} sample EA in

stratum h .

$\hat{A}_{hi}, \hat{P}_{hi}$ are weighted total area and production, respectively, of a specific crop in the i^{th} EA and h^{th} stratum.

$\hat{A}_{hij}, \hat{P}_{hij}$ are weighted values of area and production, respectively, from j^{th} agricultural household in the i^{th} EA and h^{th} stratum under a specific crop.

Since all strata are independent, the total variance at regional and country level is computed by aggregating the result obtained at Zone/Special Wereda level, i.e.

$$Var(\hat{A}) = \sum_h^L Var(\hat{A}_h), Var(\hat{P}) = \sum_h^L Var(\hat{P}_h) \text{ and } Var(\hat{Y}) = \sum_h^L Var(\hat{Y}_h)$$

Where, L is the number of strata (Zone/Special Wereda).

In estimating the sampling variance by the above formula, selection of EAs within a stratum is assumed to be with replacement. By so doing the variance estimate may be slightly over estimated but it greatly simplifies the estimation procedure.

5. Coefficient of Variation (CV) of Estimates:

Coefficient of Variation (CV) in percentage of estimate of stratum total of area, production and yield for a specific crop are given by:

$$CV(\hat{A}_h) = \frac{\sqrt{Var(\hat{A}_h)}}{\hat{A}_h} * 100, CV(\hat{P}_h) = \frac{\sqrt{Var(\hat{P}_h)}}{\hat{P}_h} * 100, CV(\hat{Y}_h) = \frac{\sqrt{Var(\hat{Y}_h)}}{\hat{Y}_h} * 100$$

6. Ninety-five percent confidence interval (CI) of stratum total of area:

$$\hat{A}_h \pm 1.96 * SE(\hat{A}_h) \quad ,$$

Where $SE(\hat{A}_h) = \sqrt{Var(\hat{A}_h)}$ is standard error of the estimate of the stratum total of area.

Estimates of standard error and confidence interval for the other estimates can also be calculated by adopting the above formulas.

APPENDIX II

STANDARD ERRORS AND COEFFICIENTS OF VARIATION OF ESTIMATES

APPENDIX III

**NUMBER OF EAs SAMPLED AND COVERED
NUMBER OF HOUSEHOLDS SAMPLED AND COVERED
NUMBER OF FIELDS MEASURED AND CROP-CUTTINGS
PERFORMED**

Appendix III. Number of Planned and Actually Covered Sampling Units (EAs & Households)
of the 2005/6 (1998 E.C.) Annual Agricultural Sample Survey (Meher Season).

Region	Stratum	Enumeration Areas		Households	
	Zone/Sp.wereda	Planned	Covered	Planned	Covered
Tigray	North Western Tigray	31	31	930	930
	Central Tigray	40	40	1200	1200
	Eastern Tigray	29	29	870	870
	Southern Tigray	40	40	1200	1200
	Western Tigray	25	25	750	749
	Region Total	165	165	4950	4949
Afar	Zone One	24	19	720	560
	Zone Three	24	24	720	719
	Region Total	48	43	1440	1279
Amhara	North Gonder	44	44	1320	1319
	South Gonder	44	44	1320	1320
	North Wello	46	46	1380	1379
	South Wello	48	48	1440	1438
	North Shewa	40	39	1200	1170
	East Gojam	48	47	1440	1409
	West Gojam	48	48	1440	1440
	Wag Hemira	28	27	840	810
	Awi	32	32	960	960
	Oromia	28	27	840	810
	Region Total	406	402	12180	12055
Oromia	West Wellega	42	42	1260	1257
	East Wellega	45	45	1350	1350
	Illubabor	36	36	1080	1079
	Jimma	48	48	1440	1439
	West Shewa	42	42	1260	1260
	North Shewa	34	34	1020	1020
	East Shewa	44	44	1320	1320
	Arsi	46	46	1380	1379
	West Harerghe	40	40	1200	1199
	East Harerghe	44	44	1320	1317
	Bale	40	40	1200	1174
	Borena	36	36	1080	1079
	South West Shewa	40	40	1200	1200
	Guji	36	36	1080	1079
Region Total	573	573	17190	17152	

Appendix III (cont'd)

Region	Stratum	Enumeration Areas		Households	
	Zone/Sp.wereda	Planned	Covered	Planned	Covered
Somali	Shinile	20	20	600	594
	Jijiga	28	28	840	832
	Liben	24	24	720	715
	Region Total	72	72	2160	2141
Benishangul-Gumuz	Metekel	28	26	840	780
	Asosa	28	28	840	840
	Kemashi	24	24	720	720
	Region Total	80	78	2400	2340
SNNP	Guraghe	38	38	1140	1140
	Hadiya	34	34	1020	1020
	Kembata_Tambaro	33	33	990	989
	Sidama	44	44	1320	1320
	Gedeo	34	34	1020	1016
	Wolayita	40	40	1200	1200
	South Omo	33	33	990	990
	Shaka	24	24	720	719
	Keffa	36	36	1080	1078
	Gamo_Gofa	40	40	1200	1200
	Bench_Maji	32	31	960	929
	Yem Specia Wereda	20	20	600	600
	Amaro Special W.	20	20	600	600
	Burji Special Wereda	20	20	600	600
	Konso Special Wereda.	20	20	600	600
	Derashe Special Wereda.	20	20	600	599
	Dawro	32	32	960	959
	Basketo Special Wereda.	20	20	600	599
	Konta Special Wereda.	20	20	600	600
	Siltie	32	32	960	960
	Alaba Special Wereda.	20	20	600	600
Region Total	612	611	18360	18318	
Harari	Harari	24	24	720	720
Addis Ababa	Addis Ababa	20	20	600	600
Dire Dawa	Dire Dawa	24	24	720	715
Country Total		2024	2012	60720	60269

Appendix III (cont'd) Number of Parcels, Fields measured and Crop-cuttings performed by Region and Zone

Region	Zone	Number of Parcels	Number of fields	Number of Crop-cuttings	
Tigray	N.W. Tigray	4,553	8,206	1,935	
	Central Tigray	5,020	9,647	2,505	
	Eastern Tigray	3,869	8,158	1,984	
	Southern Tigray	5,875	8,279	2,257	
	Western Tigray	7,124	10,606	2,642	
	Region Total		26,441	44,896	11,323
Afar	Zone One	1,970	2,433	299	
	Zone Three	2,380	3,525	437	
	Regional Total	4,350	5,958	736	
Amhara	North Gondar	10,849	15,805	4,420	
	South Gondar	7,793	11,976	3,423	
	North Wello	7,147	11,291	3,372	
	South Wello	9,206	13,773	3,887	
	North Shewa	7,572	15,505	3,160	
	East Gojam	7,316	11,575	2,782	
	West Gojam	7,930	12,874	2,953	
	Wag Hemira	4,030	5,800	2,128	
	Awi	5,127	9,348	1,822	
	Oromia zone	3,251	5,776	1,305	
	Regional Total	70,221	113,723	29,252	
	Oromia	West Wellega	11,746	22,359	5,583
		East Wellega	8,689	16,767	4,430
		Illubabor	9,338	18,880	4,547
Jimma		7,069	16,906	3,367	
West Shewa		7,657	14,885	2,915	
North Shewa		6,670	10,547	2,160	
East Shewa		6,748	11,898	2,837	
Arsi		7,258	13,198	2,780	
West Harerghe		4,695	8,795	2,004	
East Harerghe		5,614	10,409	2,126	
Bale		3,886	6,922	2,103	
Borena		3,870	7,344	1,051	
South West Shewa		6,994	13,086	2,842	
Guji		4,185	8,237	1,614	
Region Total		94,419	180,233	40,359	

Appendix III (cont'd) Number of Parcels, Fields measured and Crop-cuttings performed by Region and Zone

Region	Zone	Number of Parcels	Number of fields	Number of Crop-cuttings
Somali	Shinile	1,888	2,898	368
	Jijiga	3,016	4,863	1,018
	Liben	2,309	2,843	476
	Regional Total	7,213	10,604	1,862
Benish-Gumuz	Metekel	3,307	5,298	1,484
	Asosa	4,202	7,155	2,042
	Kemashi	2,803	4,345	1,364
	Regional Total	10,312	16,798	4,890
SNNP	Guraghe	4,051	13,511	1,602
	Hadiya	3,564	13,679	1,878
	Kembata_Tambaro	3,272	12,844	1,472
	Sidama	4,477	10,532	1,246
	Gedeo	3,736	6,818	852
	Wolayita	4,019	13,261	1,511
	South Omo	4,294	8,611	1,484
	Shaka	2,817	6,177	722
	Keffa	4,790	12,891	2,557
	Gamo_Gofa	5,712	14,269	2,202
	Bench_Maji	3,936	8,299	1,320
	Yem SpeciWereda	2,707	7,068	1,503
	Amaro Special W.	2,467	5,443	905
	Burji Spec.Wereda	2,447	5,681	1,427
	Konso S. Wereda.	2,573	4,229	783
	Derashe Wereda.	2,243	3,675	881
	Dawro	3,294	9,510	1,412
	Basketo Wereda.	2,664	8,202	1,091
	Konta Sp. Wereda.	2,319	7,495	1,076
	Siltie	3,732	11,376	2,374
	Alaba Sp. Wereda.	2,196	6,185	1,457
	Regional Total	71,310	189,756	29,755
	Harari		3,167	5,176
Addis Ababa		3,137	5,658	1,311
Dire Dawa		2,969	4,231	703
Country	Total	293,539	577,033	121,166

APPENDIX IV

QUESTIONNAIRE

PART III – RESULTS OF AREA MEASUREMENTS

18	19	20	21	22	23	24	25	26
Is the field measured?		Yes =1		No = 2		Code →		
Side	1 - 2	2 - 3	3 -	4 -	5 -	6 -	7 -	8 -
Bearing (0)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Length	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Side	9 -	10 -	11 -	12 -	13 -	14 -	15 -	16 -
Bearing(0)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Length	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Side	17 -	18 -	19 -	20 -	21 -	22 -	23 -	24 -
Bearing (0)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Length	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Side	25 -	26 -	27 -	28 -	29 -	30 -	31 -	32 -
Bearing (0)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Length	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Field Measurement	date	month	Closure error		Area in square meters			
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
For fields selected		Selected corner number		Shortest side length		Random number		
For crop cutting		Shortest side Bearing		Longest side length		Random number		

